

## Instrument performance self-efficacy perceptions of Music education students

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### Suggested Citation:

Ciftcibasi, M, C. (2020). Instrument performance self-efficacy perceptions of Music education students. *Cypriot Journal of Educational Science*. 16(3), 1204-1216. <https://doi.org/10.18844/cjes.v16i3.5841>

Received from January 12, 2020; revised from April 15, 2021; accepted from June 01, 2021.

Selection and peer review under responsibility of Prof. Dr. Huseyin Uzunboylu, Higher Education Planning, Supervision, Accreditation and Coordination Board, Cyprus.

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### Abstract

The aim of this research was to identify the instrument performance self-efficacy status of students in the music education department. The study group for the research comprised 121 students attending Mehmet Akif Ersoy University Faculty of Education, Department of Music Education. In order to identify the self-efficacy perceptions of students in the research, the "Self-Efficacy Scale Related to Instrument Performance" developed by Şeker (2016) was used. The model had a chi-square value 283.52, with 148 degrees of freedom. Investigation of the reliability of the scale found that the Cronbach alpha coefficient for the whole scale was .90 with correlation coefficient  $r = .88$ ,  $p < 0.01$ . When the instrument performance self-efficacy of students in the music education department was investigated, it was seen that male students have higher self-efficacy perception than female students. Additionally, students who had graduated from fine art high schools were surmised to have higher self-efficacy for instrument performance compared to those who had graduated from other high schools.

**Keywords:** Instrument performance; music education; self-efficacy.

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## 1. Introduction

Social-cognitive theory assumes self-efficacy affects behaviour and environment and conversely is affected by them (Bandura, 1997). Self-efficacy also assists in determining how much effort people will put into an activity, how much they will press on when faced with obstacles, and how resistant they are when faced with negative situations (Schunk & Pajares, 2009). Self-efficacy is defined as “beliefs about the ability to successfully apply the behaviour necessary to produce outcomes” (Bandura, 1977, cited by McCormick & McPherson, 2003). Additionally, self-efficacy involves organizing and completing the necessary actions or skills to display competent performance. For example, self-efficacy in music performance does not just involve a good instrumentalist knowing his or her own ability, but also involves clear judgments about the skills required to perform in front of others like in a music exam or concert (McCormick & McPherson, 2003). Externally graded performance exams, like those offered by Trinity College London and the Associated Board of the Royal Schools of Music, present a unique framework to investigate the self-efficacy perceptions of young musicians. These perceptions are important especially considering the possibility of fluctuations linked to external factors like the physical status and mood of the person, in addition to the nature of the task and social surroundings (Pintrich & Schunk, 1996).

The instrument education lesson taught in the music education department can be regarded as shaping the self-efficacy beliefs of individuals related to personal experiences as the lesson is taught one-on-one, allows the opportunity for individuals to exhibit their skills, and includes musical performance with most instruments (Şentürk & Bölek, 2019).

Instrument education lessons are carried out for one hour a week in the departments of music education. Students study for one hour a week with the instrument teacher, and the rest of the time they manage their instrument education on their own. During this process, students must proceed with appropriate strategies towards the target they have determined in order for them to perform their instrument studies efficiently (Şeker, 2014). Students should be aware of the perception of self-efficacy and benefit from this perception for efficient work.

In the relevant literature, there are many domestic and international studies on how musical self-efficacy is related to other structures in music. These studies examined the relationship between self-efficacy and musical performance in terms of different variables and in different study groups. McCormick and McPherson (2003) studied the role of self-efficacy when examining musical performance with structural equation analysis. As a result of this examination, they determined that the most important predictor of real performance in graded scoring used in music performance exams is self-efficacy. Nielsen (2004) determined the strategies used by 1st year students who received undergraduate music education in Norway during their individual studies and found that they generally used cognitive, metacognitive, and resource management strategies. He found that students with high self-efficacy used more cognitive and metacognitive strategies when trying to learn material compared to students with low levels. St. George (2006) conducted his research with 376 primary and secondary school students playing instruments in Australia. The study group consisted of two groups: students who were continuing with their instrument education (69%) and students who had quit their instrument education (31%). Serious differences emerged between these two groups in terms of musical background, musical emotion, application satisfaction, and self-efficacy levels. It was determined that the self-efficacy levels of the students who had quit their instrument education were very low compared to those who were continuing with their education. The researcher found that the self-efficacy perceptions of the students regarding their own learning processes were strongly related to instrument learning. Silverman (2008) stated that students' level of knowledge should be raised above musical technique and their self-efficacy levels should be increased by using constructivist and creative democratic learning processes in order to create and develop musical interpretations in students artistically and personally. Yıldırım (2009) investigated the effect of the Kodaly method on violin playing skill, self-efficacy perception, and attitudes towards violin playing in elementary school violin students.

He determined that self-efficacy significantly affected the tendency to play violin dimension. Şeker and Bilen (2010) studied the effects of Orff-supported violin training on the perception of self-efficacy towards playing violin in children aged between 9 and 11 and determined that this training had positive effects on self-efficacy perception. Zelenak (2015) studied the scores of middle school and high school music students in the USA on the music performance self-efficacy scale (MPSES) and found that self-efficacy increased their musical ability scores.

Studies have also been conducted on the importance of self-efficacy in measuring musical performance and developing a self-efficacy measurement tool. McPherson and McCormick (2006) compared two different graded scoring measurement tools used during musical performance measurement. Self-efficacy perception is included in only one of these performance measurement tools, and the results of the study showed that self-efficacy was again the most important predictor of success in exams. Afaçan (2008) developed a tool to measure the self-efficacy levels of teacher candidates in teaching music, Özmenteş (2011) developed a self-efficacy scale for music teaching, Gün and Yıldız (2014) developed a piano performance self-efficacy scale for music teacher candidates, Girgin (2015) developed an instrument performance self-efficacy scale consisting of 20 items and 3 sub-dimensions, and Şeker (2016) developed a self-efficacy scale for instrument performance. Şentürk and Bölek (2019) examined musical teacher candidates' instrument self-efficacy in terms of different variables and found that male candidates had higher levels of self-efficacy.

In the relevant literature, the self-efficacy perceptions of music educators/candidates and the relationship between these perceptions and different variables were studied. Thompson (2007) mentioned the beliefs of music educators about learning to teach music in his article. He focused on the search for new educational processes, the need to change and expand personal teaching schemes, and the importance of self-efficacy in this process by putting aside familiar practices in both the education of music education candidates and when they start their profession. Welch et al. (2009) mentioned the importance of classroom teachers' self-efficacy levels for singing and teaching songs in their study. Küçük (2011) studied the relationship between music teacher candidates' perceptions of self-efficacy regarding musical talent and their academic achievement. He determined that the music teacher candidates who have high self-efficacy beliefs are more ready and eager to learn and achieve greater academic success. Yokuş (2014) found that there is a positive significant relationship between self-efficacy and academic achievement when he examined the differentiation status of teacher candidates' education and teaching self-efficacy levels according to various variables. Özmenteş (2014) examined the relationship between music self-efficacy and self-esteem in high school and university-level vocational music education students. The results of the study indicated a positive significant relationship between self-efficacy and self-esteem, while male students had a higher musical self-efficacy level.

The research problem of the study was "What is the level of self-efficacy perceptions of the music education department students in their instrument performances?".

Within the framework of this problem, the answers to the following sub-problems were sought.

- Do the self-efficacy perception levels of the students of the music education department show a significant difference according to the variables of age, sex, individual instrument, and the type of high school graduated from?
- Do the self-efficacy perception levels of musical education students' instrument performances differ significantly according to the quality perception of their individual instruments?
- Do the self-efficacy perception levels of musical education students' instrument performances differ significantly according to their status of having performed a solo concert?

- Do the self-efficacy perception levels of the musical education students in their instrument performances differ significantly according to their level of earning money through their individual instruments?
- Do the self-efficacy perception levels of the musical education students' instrument performances differ significantly according to the individual instrument course grade?

## 2. Method

This research, targeting investigation of the instrument performance self-efficacy perceptions of students in the music education department, was a descriptive study involving survey research. Research aiming to collect data with a range of tools like interview questions and tests in order to identify the features of a group is called survey research (Büyüköztürk et al., 2009).

### 2.1 Study group

The study group comprised 121 students attending Mehmet Akif Ersoy University, Faculty of Education, Music Education Department in the 2019-2020 educational year.

Table 1. Frequency and percentage distribution of demographic information for university students participating in the study

Variable	Sub-variable	f	%
Year	1st year	40	33.1
	2nd year	30	24.8
	3rd year	27	22.3
	4th year	24	19.8
Age group	18-19	32	26.4
	20-21	53	43.8
	22-23	36	29.8
Sex	Male	52	43.0
	Female	69	57.0
Individual instrument	1st group	37	30.6
	2nd group	39	32.2
	3rd group	20	16.5
	4th group	13	10.7
	5th group	10	8.3
	Other	2	1.7
High school of graduation	Fine Arts High School	67	55.4
	Other High School	54	44.6
Perception of instrument quality	1-4	11	9.1
	5-7	65	53.7
	8-10	45	37.2
Have you performed a solo concert?	Yes	46	38.0
	No	75	62.0
Number of solo concerts	0	75	62.0
	1-2	20	16.5
Do you earn money with your instrument?	2+	26	21.5
	Yes	39	32.2
Instrument grades	No	82	67.8
	Less than 50	8	6.6
	50-59	11	9.1
	60-69	15	12.4
	70-79	34	28.1
	80-89	22	18.2

1st group (violin, viola, cello); 2nd group (guitar, bağlama); 3rd group (piano); 4th group (voice); 5th group (flute)

The table shows that 33.1% of the university students participating in the research were 1st year students, 24.8% were 2nd year students, 22.3% were 3rd year students, and 19.8% were 4th year students. Of the students, 26.4% were in the 18-19 year age group, 43.8% were in the 20-21 year age group, 29.8% were in the 22-23 year age group, 43% were male, and 57% were female. In terms of instrument groups, 30.6% were in the 1st group of instruments, 32.2% were in the 2nd group, 16.5% were in the 3rd group, 10.7% were in the 4th group, 8.3% were in the 5th group, and 1.7% were in the other instruments group (*as the number playing other instruments was low, they were not included in the analysis for the hypothesis tests*). Of the students, 55.4% had graduated from fine arts high schools and 44.6% from other high school types. Among the students participating in the research, 38% had given solo concerts, while 62% had never performed solo concerts, 16.5% had given solo concerts 1-2 times, 21.5% had given solo concerts more than 2 times, and 32.2% earned money with their instrument. Among the students participating, 6.6% had an instrument lesson grade of 50 or lower, 9.1% of 50-59, 12.4% of 60-69, 28.12% of 70-79, 18.2% of 80-89, and 35.6% of 90-100.

Table 2. Descriptive statistics for self-efficacy scale points for instrument performance, age, instrument sound quality, number of solo concerts, and final grade for instrument lessons of university students

Variable	x	sd
Self-efficacy belief about instrument performance	6.75	1.675
Mood felt during instrument studies	6.18	1.774
Modelling	2.81	1.992
Age	20.96	2.399
Instrument sound quality	6.83	1.938
Number of solo concerts	1.11	1.852
Final grade from instrument lesson	74.51	16.644

The table shows that the university students participating in the research had mean performance-related self-efficacy points of  $6.75 \pm 1.675$ , mean points for mood felt during instrument work of  $6.18 \pm 1.774$ , and mean modelling points of  $2.81 \pm 1.992$ . The mean age of the students participating was  $20.96 \pm 2.399$  years, mean instrument sound quality was  $6.83 \pm 1.938$  points, mean number of solo concerts was  $1.11 \pm 1.852$ , and mean grade from the instrument lesson was  $74.51 \pm 16.644$  points.

## 2.2. Data collection tools

The data in the study were obtained using the "Self-Efficacy Scale for the Candidate Music Teacher" developed by Şeker (2016) and the "Personal Information Form" developed by the researcher.

### 2.2.1. Personal information form

This form, developed by the researcher, gathered demographic information of the students of the department of music education such as sex, age, individual instrument, and the type of school graduated from, as well as questions about the variables in the sub-problems. These include the students' perception of the sound quality of their instrument, the status of giving a solo concert, the status of earning money with the instrument, and the final individual instrument lesson exam grade.

### 2.2.2. Self-Efficacy scale for the candidate music teacher

The scale includes 19 items, six of which are negative and 13 of which are positive. The scale has three sub-dimensions: "Self-efficacy about performance", "Emotional states during instrument

training", and "Modelling". The reliability coefficients of the sub-dimensions of the scale were calculated as 86, 76, and 61, respectively. The chi-square value of the model is 283.52 and the degree of freedom is 148. When the reliability of the scale is examined, the Cronbach-alpha coefficient of the whole scale is .90 and the correlation coefficient is  $r=.88$ ,  $p<0.01$ . As a result of the confirmatory factor analysis of the scale, it was determined that the model created was  $\chi^2 = 283.52$   $df=148$  and the  $\chi^2/df$  ratio (1.91) was found to be evidence that the model showed a good fit. Later, similar scale validity analyses of the developed scale were performed and it was found that there was a strong positive correlation ( $r=.651$ ,  $p <0.01$ ) regarding the total scores of both scales (Şeker, 2016).

### 2.3. Analysis of data

SPSS 22.0 was used to analyze the data obtained. The scale data first were tested for reliability, which gave a Cronbach alpha internal consistency coefficient for the scale of .888 for the performance-related self-efficacy belief sub-dimension, .754 for the mood felt during instrument work, .906 for the modelling sub-dimension, and .717 for the whole scale. One-sample Kolmogorov–Smirnov analysis was applied to check the normality assumption and the data related to sub-dimensions and total points were identified to display normal distribution. Comparisons of scale points according to demographic variables with two categories used the independent t test, while comparison of scale points with three or more categories used one-way ANOVA. For the ANOVA, Tukey’s test was applied post hoc. Pearson correlation analysis and multiple linear regression analysis were used to investigate the effect of year of education, age, sound quality of instrument, number of solo concerts, and grade for the instrument lesson on scale total points.

### 3. Findings

Table 3. Comparison of self-efficacy related to instrument performance scale points of university students according to the age group variable

Subscale	Age group	n	x	sd	f	p
Self-efficacy belief related to instrument performance	18-19	32	6.27	1.843	1.980	.143
	20-21	53	7.01	1.591		
	22-23	36	6.78	1.591		
Mood felt during instrument studies	18-19	32	5.85	1.781	1.888	.156
	20-21	53	6.53	1.629		
	22-23	36	5.97	1.926		
Modelling	18-19	32	3.39	2.166	1.834	.164
	20-21	53	2.59	2.020		
	22-23	36	2.62	1.725		

The table indicates that the performance-related self-efficacy belief, mood felt during instrument work, and modelling self-efficacy levels of university students participating in the research did not significantly differ according to age group ( $p>0.05$ ).

Table 4. Comparison of self-efficacy related to instrument performance scale points of university students according to the sex variable

Subscale	Sex	n	x	sd	t	p
Self-efficacy belief related to instrument performance	Male	52	7.10	1.576	2.057	.042
	Female	69	6.48	1.707		
Mood felt during instrument studies	Male	52	6.55	1.753	2.011	.047
	Female	69	5.91	1.752		
Modelling	Male	52	2.41	1.835	-1.945	.054
	Female	69	3.11	2.064		

From the table, it appears that modelling levels did not significantly differ according to the sex of the university students participating in the research ( $p>0.05$ ). Performance-related self-efficacy belief and mood felt during instrument work levels significantly differed according to sex ( $p<0.05$ ). The self-efficacy levels for performance-related self-efficacy beliefs and mood felt during instrument work of male students were higher.

Table 5. Comparison of self-efficacy related to instrument performance scale points of university students according to instrument group

Subscale	Individual Instrument	n	x	sd	f	p	Difference between groups
Self-efficacy belief related to instrument performance	1st group	37	6.28	1.611	1.733	.147	-
	2nd group	39	6.89	1.566			
	3rd group	20	6.63	2.116			
	4th group	13	7.31	1.439			
	5th group	10	7.51	1.407			
Mood felt during instrument studies	1st group	37	5.69	1.613	1.562	.189	-
	2nd group	39	6.37	1.740			
	3rd group	20	5.98	2.284			
	4th group	13	6.77	1.553			
	5th group	10	6.80	1.485			
Modelling	1st group	37	2.85	1.651	.574	.682	-
	2nd group	39	2.52	1.905			
	3rd group	20	3.09	2.836			
	4th group	13	3.37	2.156			
	5th group	10	2.63	1.531			

1st group (violin, viola, cello); 2nd group (guitar, bağlama); 3rd group (piano); 4th group (voice); 5th group (flute)

The table reveals that the performance-related self-efficacy belief, mood felt during instrument work, and modelling self-efficacy levels of university students participating in the research did not differ according to instrument played ( $p>0.05$ ). The total self-efficacy levels of students in the 4th instrument group (voice) were higher than those of students in the 1st group (violin, viola, cello).

Table 6. Comparison of self-efficacy related to instrument performance scale points of university students according to high school type

Subscale	High school type	n	x	sd	t	p
Self-efficacy belief related to performance	Fine Arts	67	7.03	1.505	2.077	.040
	Other	54	6.40	1.819		
Mood felt during instrument studies	Fine Arts	67	6.35	1.726	1.154	.251
	Other	54	5.98	1.828		
Modelling	Fine Arts	67	2.64	1.862	-1.043	.299
	Other	54	3.02	2.141		

The table indicates that the mood felt during instrument work and modelling levels did not significantly differ according to the high school type for the university students participating in the research ( $p>0.05$ ). Performance-related self-efficacy levels significantly differed according to high school type ( $p<0.05$ ). Students who had graduated from fine arts high schools had higher performance-related self-efficacy belief levels.

Table 7. Comparison of self-efficacy related to instrument performance scale points of university students according to perception of individual instrument quality

Subscale	Quality Perception	n	x	sd	f	p	Difference between groups
Self-efficacy belief related to performance	1-4	11	5.21	1.701	14.998	.000	1<2, 1<3, 2<3
	5-7	65	6.40	1.419			
	8-10	45	7.62	1.585			
Mood felt during instrument studies	1-4	11	4.43	1.255	12.317	.000	1<2, 1<3, 2<3
	5-7	65	5.94	1.482			
	8-10	45	6.97	1.884			
Modelling	1-4	11	4.62	2.079	16.912	.000	1>3, 2>3
	5-7	65	3.28	1.962			
	8-10	45	1.70	1.352			

The table shows that performance-related self-efficacy beliefs, mood felt during instrument studies, and modelling self-efficacy levels significantly differed according to the perception of individual instrument quality of the university students participating in the research ( $p<0.05$ ). The performance-related self-efficacy beliefs and mood felt during instrument work self-efficacy levels were significantly higher for those with instrument quality perception of 5-7 and 8-10 compared to those with instrument quality perception of 1-4. Additionally, the self-efficacy perception of those with instrument quality perception 8-10 was significantly higher compared to those with instrument quality perception of 5-7 ( $p<0.05$ ). For the modelling sub-dimension, those with instrument quality perception of 1-4 and 5-7 appeared to have significantly higher levels compared to those with instrument quality perception of 8-10 ( $p<0.05$ ).

Table 8. Comparison of self-efficacy related to instrument performance scale points of university students according to previous solo concert performance

Subscale	Have you performed a solo concert?	n	x	sd	t	p
Self-efficacy belief related to performance	Yes	46	7.74	1.315	5.783	.000
	No	75	6.13	1.581		
Mood felt during instrument studies	Yes	46	7.10	1.611	4.867	.000
	No	75	5.62	1.637		
Modelling	Yes	46	1.73	1.495	-5.160	.000
	No	75	3.48	1.974		
	No	75	5.19	.972		

The table reveals that the performance-related self-efficacy beliefs, mood felt during instrument studies, and modelling self-efficacy levels were significantly different according to whether the students had performed solo concerts ( $p<0.05$ ). Students who had given solo concerts had higher performance-related self-efficacy belief and mood felt during instrument studies, while those who had not showed higher modelling levels.

Table 9. Comparison of self-efficacy related to instrument performance scale points of university students according to earning money with their instrument

Subscale	Do you earn money with your instrument?	n	x	sd	t	p
Self-efficacy belief related to performance	Yes	39	7.94	1.115	6.211	.000
	No	82	6.18	1.598		



Mood felt during instrument studies	Yes	39	7.33	1.367	5.437	.000
	No	82	5.64	1.691		
Modelling	Yes	39	1.77	1.240	-4.220	.000
	No	82	3.30	2.095		

The table shows that the performance-related self-efficacy belief, mood felt during instrument work, and modelling levels significantly differed according to whether the university students participating in the research earned money with their instrument or not ( $p < 0.05$ ). The performance-related self-efficacy belief and mood felt during instrument work were higher for students earning money with their instrument, while the modelling levels of students who did not earn money with their instrument appeared to be higher.

Table 10. Comparison of self-efficacy related to instrument performance scale points of university students according to individual instrument lesson grade

Subscale	Grade	n	x	sd	f	p	Difference between groups
Self-efficacy belief related to performance	Less than 50	8	5.00	1.624	27.715	.000	1<4, 1<5, 1<6, 2<4, 2<5, 2<6
	50-59	11	4.54	1.273			
	60-69	15	5.81	.956			
	70-79	34	6.37	1.246			
	80-89	22	7.55	1.031			
	90-100	31	8.29	1.025			
Mood felt during instrument studies	Less than 50	8	5.06	1.585	17.569	.000	1<4, 1<5, 1<6, 2<4, 2<5, 2<6
	50-59	11	4.18	1.073			
	60-69	15	4.82	1.197			
	70-79	34	5.89	1.404			
	80-89	22	6.91	1.392			
	90-100	31	7.65	1.406			
Modelling	Less than 50	8	4.02	1.500	9.436	.000	1>4, 1>5, 1>6, 2>4, 2>5, 2>6
	50-59	11	5.09	1.089			
	60-69	15	3.19	1.955			
	70-79	34	3.27	2.364			
	80-89	22	1.89	1.349			
	90-100	31	1.66	1.064			

According to the table, the performance-related self-efficacy belief, mood felt during instrument work, and modelling self-efficacy levels significantly differed according to the individual instrument lesson grade of the university students participating in the research ( $p < 0.05$ ). The self-efficacy perception for performance-related self-efficacy belief and mood felt during instrument work of those with lesson grades of 70-79, 80-89, and 90-100 appeared to be significantly higher compared to those with grades of less than 50, 50-59, and 60-69 ( $p < 0.05$ ). For modelling, the proportion who felt they were inadequate with grades of less than 50 and 50-59 appeared to be significantly higher than for those with grades of 80-89 and 90-100 ( $p < 0.05$ ).

#### 4. Discussion and conclusion

Based on the findings obtained in the present research, it was concluded that the instrument performance-related self-efficacy scale points of students in the music education department did not significantly differ according to age group. A review of the literature shows that different results were revealed by similar studies. The study by Şentürk & Bölek (2019) entitled “Investigation of Instrument Self-efficacy Status of Preservice Music Teachers” concluded that as year level, in other words age, increased, instrument self-efficacy belief increased. However, research entitled “Investigation of the Correlation between Academic Self-Efficacy Level and Attitudes to Instrument Studies of Preservice Music Teachers” by Şeker (2014) stated that as age increased, attitudes related to playing instruments displayed negative traits. Research by McCormick and McPherson (2003) entitled “The Role Of Self-Efficacy In A Musical Performance Examination: An Exploratory Structural Equation Analysis” found that self-efficacy was negatively affected among 332 instrumentalists attending Trinity College London with high levels in lower class levels that decreased due to the increasingly difficult exam requirements as the class level increased.

It was identified that the “modelling” level among the sub-dimensions of the instrument performance-related self-efficacy scale did not significantly differ with sex for students in the music teaching department. However, the self-efficacy levels of the other sub-dimensions of the scale, “performance-related self-efficacy belief” and “mood felt during instrument work”, were in favour of males. A study by Özmenteş (2014) entitled “Correlations between Music Self-Efficacy, Self-Esteem and Individual Characteristics of Students Receiving Professional Music Education” identified that male students had higher self-efficacy perceptions compared to female students. The study entitled “Investigation of Professional Self-Efficacy Status of Preservice Music Teachers in terms of a Variety of Variables: The Selçuk University Example” by Birer and Sonsel (2013) identified a significant difference in ability to apply teaching methods self-efficacy perception levels in favour of male preservice music teachers. Research by Nielsen (2004) entitled “Strategies And Self-Efficacy Beliefs In Instrumental And Vocal Individual Practice: A Study Of Students In Higher Music Education” concluded that male students had higher self-efficacy belief levels due to greater participation in instrumental practice compared to female students.

It was concluded there was no significant difference in instrument performance-related self-efficacy scale points for the individual instrument variable among students in the music education department. However, students in the 4th group of individual instruments (voice) had higher self-efficacy levels compared to those in the 1st group (violin, viola, cello). Different results were found in the study entitled “Investigation of Instrument Self-Efficacy Status of Preservice Music Teachers” by Şentürk and Bölek (2019). When the mean points obtained from the instrument self-efficacy belief scale and sub-dimension of preservice music teachers were investigated according to instrument group, a positive significant difference was identified between the 1st and 3rd (violin, viola, cello, bass and guitar, bağlama, kanun) groups.

The sub-dimension levels for “mood felt during instrument studies” and “modelling” did not significantly differ for the high school type from which students in the music education department had graduated; however, the “performance-related self-efficacy belief” sub-dimension level did significantly differ. Students who had graduated from fine arts high schools were found to have higher “performance-related self-efficacy belief” levels. The study by Birer and Sonsel (2013) entitled “Investigation of Professional Self-Efficacy Status of Preservice Music Teachers in terms of a Variety of Variables: The Selçuk University Example” identified that the scale sub-factors of “command of the curriculum” and “self-efficacy perception related to educational level” were significantly different according to the high school type of preservice teachers in favour of those who had graduated from fine arts high schools. Preservice music teachers who had graduated from fine arts high schools considered themselves more competent in terms of their own educational level and knowledge of the curriculum. The study entitled “Investigation of Instrument Self-Efficacy Status of Preservice Music Teachers” by Şentürk and Bölek (2019) and the study entitled “Investigation of the Correlation between Academic Self-Efficacy Level and Attitudes to Instrument Studies of Preservice Music Teachers” by Şeker (2014)

obtained results different from ours. Both of those studies stated there were no statistically significant differences in terms of instrument self-efficacy for fine arts high schools and other high schools.

It was identified that “performance-related self-efficacy belief”, “mood felt during instrument work”, and “modelling” self-efficacy levels, in other words all 3 sub-dimensions of the scale, significantly differed with the instrument quality perception variable for students in the music teaching department. The self-efficacy perception for the “performance-related self-efficacy belief” and “mood felt during instrument studies” sub-dimensions were higher for those with instrument quality perception of 5-7 and 8-10 compared to those with instrument quality perception of 1-4. This surprising result shows that students who considered their instrument was of higher quality felt they had higher self-efficacy levels. For students receiving voice training in individual instrument lessons, better perception of sound quality and sound interval are accepted as elements determining instrument quality. A review of the relevant literature revealed no finding or conclusion about the correlation of the individual instrument quality perception variable with self-efficacy levels.

It was identified that the self-efficacy levels for the 3 sub-dimensions of the scale significantly differed with the giving solo concerts variable for students in the music education department. Students who had given solo concerts had higher “performance-related self-efficacy belief” and “mood felt during instrument work”, while students who had not appeared to have higher “modelling” levels. Studies by Şentürk and Bölek (2019), McCormick and McPherson (2003), and Nielsen (2004) support this result.

The self-efficacy levels for the 3 sub-dimensions of the scale significantly differed according to the earning money variable for students in the music teaching department. Students who earned money with their instruments had higher “performance-related self-efficacy belief” and “mood felt during instrument work” levels, while students who did not had higher “modelling” levels. Moving from here, giving solo concerts and earning money with instrument variables can be considered similar. The self-efficacy levels for the 3 sub-dimensions of the scale significantly differed according to the individual instrument lesson grade for students in the music education department. The self-efficacy perceptions for “performance-related self-efficacy belief” and “mood felt during instrument work” were significantly higher for those with grades of 70-79, 80-89, and 90-100 compared to those with grades of less than 50, 50-59, and 60-69.

## 5. Recommendations

It is considered that it will be beneficial to organize more individual concert activities during the education-teaching process to increase the instrument performance self-efficacy levels of students. According to the research results, another important element is the quality of the instrument. For this reason, quality instrument support may be provided by the educational organization for students without financial status to obtain a good instrument. Students who do not come from a fine arts high school can also be encouraged to participate in more concert activities. In addition, students' self-efficacy can also be taken into consideration when evaluating individual instrument lessons in institutions that educate music teachers. Similar studies may be performed with students of different ages and educational levels.

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