An Examination of the Performance Anxiety Levels of Undergraduate Music Teaching Students in the Instrument Exams According to Various Variables *(Case of Tokat Province)*

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Abstract

Quantitative descriptive method was used in order to examine the state-trait and total anxiety levels of the students in the Undergraduate Music Teaching Program by gender, instrument difference, school year and academic achievement scores of students. The study has been conducted in the fall semester of 2018-2019 academic year in Turkey with Tokat University Faculty of Education, Fine Arts Education Department Music Education Program students (n = 77). For data collection, "The State-Trait Anxiety Inventory" developed by Spielberg et al. (1964) and adopted to Turkish by Öner and Le Compte (1983). The trait anxiety inventory was applied in a time period when the students were away from exam stress. The state anxiety inventory, on the other hand, was conducted just before the final exams. According to the results of the study, when the state-trait and total anxiety of the students receiving musical instrument education in Music Teacher Education Program is examined, it was found that there is a significant difference between trait and state anxiety, that female students' trait and total anxiety levels are higher, and the male students' state anxiety is higher; when it is considered in terms of instrument differences, it was seen that students playing stringed instruments have higher anxiety than those who play bow and wind instruments, A significant difference was found in terms of academic achievement scores in undergraduate freshman and senior students who have higher anxiety .

Keywords: instrument exam, anxiety, student, performance anxiety, music education

1. Introduction

Anxiety is a phenomenon that was scientifically addressed by Freud for the first time in the 19th century. According to Morgan (1991), although the studies before Freud examined anxiety and fear as a whole, the differences between the concepts of anxiety and fear came to the fore over time, and fear was defined as the individual's response to the external threats and dangers. Anxiety, on the other hand, is the reaction of the individual against internal threats and dangers (Ünal Karagüven, 1999: 203). While fear usually manifests itself in a specific moment, anxiety involves our concerns about future. In this case, anxiety is usually related to events that have yet to occur. The source of anxiety is mostly unclear. Unlike fear, there is no apparent danger situation in the life of the anxious person. When fear and anxiety are compared, it is possible to argue that anxiety is a feeling that is more abstract, difficult to define and that emerges in a longer-term. However, it is also known that there are multiple types of anxiety.

Anxiety is regarded as one of the basic emotions of the individual. It is the situation in which an individual feels distress about the odds of a bad event to occur. This feeling can be of different intensity up to the extent of panic. In the event of anxiety, physiological symptoms such as increased blood pressure, tension in the muscles, dry mouth, sweating of the hands and feet may be observed. This type of anxiety caused by dangerous situations often creates the emotion that can happen to each individual and is temporarily connected to a certain situation. This type of anxiety is defined as 'state anxiety' (Öner and Le Compte 1985).

It may also be the case that an individual is constantly living in distress and is often unhappy. Trait anxiety is a type of anxiety that originates from within and is not directly associated with external threats. In this case, the individual

perceives as if his/her self is threatened or interprets the situations surrounding him/her as stressful (Öner and Le compte, 1985).

It is usually considered that the fear and uneasiness caused by dangerous situations, are normal and temporary situations to live through by the individual. Trait anxiety, which may be indirectly related to the situation of the individual, can also determine personality characteristics. Personality characteristics can be influenced by an individual's tendency toward anxiety. An anxious individual can perceive the situations s/he is in as stressful. The trait anxiety is the feeling of unhappiness that arises when the individual perceives ordinary situations as threatening his/her self (Öner and Le Compte, 1985). Individuals with high levels of trait anxiety can easily become upset and get into negative thoughts. These individuals experience state anxiety more intensively and more frequently than others. As seen in the interaction between trait and state anxiety, a state of anxiety which can be defined as Music Performance Anxiety has emerged in musicians due to state anxiety.

Musical performance is recognized as an important part of the music education process. Musical performance can therefore be seen as a result / output of all studies. The performance success of each student studying and receiving music education is therefore evaluated through a concert or exam. The concept of performance, which is considered to be the product produced by a music student as a result of all those tiresome and demanding practices, can lead to the experience of positive or negative feelings depending on this process. Thus, a performance may involve a multivariate structure. The power of the performance is also closely related to the appropriate and balanced management of these variables (Aydın and İşgörür, 2017).

Cox and Kenardy (1993) describe performance anxiety as the state of anxiety associated with the fear of an individual's inability to control his or her motor skills and making mistakes in front of other people. Salmon (1999), on the other hand, names performance anxiety as music performance anxiety and defines it as a state of concern about whether the performance of the individual would be sufficient before the audience, regardless of their musical talent (Fehm and Schmidt, 2006). It can be argued that while concern creates a moderate stress on the individual, anxiety causes more serious emotional stress, and while concern does not affect our professional and personal skills, anxiety does affect those.

The primary situations that raise music performance anxiety is the students' individual instrument performance (Dalkıran et al., 2014). Particularly, the students who are in front of a commission in the final exams may panic and demonstrate mental, physical, emotional and reactive symptoms triggered by anxiety for fear of being watched by others, making mistake or being disliked while performing, since they think that they will perform their individual instrument performance in a psychomotor way. This may prevent them from achieving in their exams and performing as they wish. The same can happen when performing at the stage. Although there is no fear of being graded here, students who have the fear of making mistakes, being disliked or see unexpectedly excessive number of audiences may have more anxiety about future and fail to exhibit the performance as they wish. On a par with this, it can also be observed that students who do not have enough control of themselves or their instrument may have more anxiety.

Cognitive, behavioral, and psychomotor characteristics of anxiety and music performance anxiety are frequently mentioned in the literature. Some researchers consider it the response of the autonomic nervous system as a physiological process. Physical symptoms such as increased heart rhythm, rapid breathing, sweating, frequent urination etc. are enumerated (Zinn, 2000, Kenny, 2006). Again, situations such as reluctance to perform the duty, failure to add rendition power and musical expression as a behavioral reaction, failure to add musical expressions when trying to avoid of technical mistakes, and failure to control the fingers are mentioned about (Fehm and Schmidt, 2006). Performers cognitive anxiety levels may effects the actions success if threat perception occurs. Even the cognitive dimension of anxiety is frequently emphasized in the literature (Salmon and Meyer, 1992; Kenny, 2006). It can also be argued that musical performance anxiety is the focal point of unwanted reactions, emotional state and negative experiences as well as physiological changes that are the consequences of these (Aydın and İşgörür, 2017).

1.1 Objective

The Undergraduate Music Teaching Program is to educate the students who become successful in the special talent entrance examination and at the end, bring up music teachers who hold the qualifications accordant with the universal norms by providing science-based education system. Moreover, the objective of Music Teacher Education Program is to bring up music teachers through a system based on participation and application. The aim of this study is to determine whether the state-trait anxiety of the students who are getting instrument education at the Undergraduate Music Teaching Program vary according to various variables. The sub-problems identified within the scope of this objective are as follows.

1. Is there a significant difference between trait and state anxiety of undergraduate music teaching students?

2.Is the trait-state and total anxiety of undergraduate music teaching students differ by gender?

3. Is the trait-state and total anxiety of undergraduate music teaching students differ by the instrument they play?

4. Is the trait-state and total anxiety of undergraduate music teaching students differ by their school year?

5. Is the state anxiety of undergraduate music teaching students related to their academic achievement scores?

1.2. Significance

This study examines whether there is a significant difference between state-trait anxiety levels of Undergraduate Music Teaching Program students, who get instrument education, by their gender, school year, and the instrument they play; and whether their academic achievement scores have any impact on their trait-state anxiety. The failure on either the exams or concerts performed by the music education students may affect them negatively. With this study, various causes of anxiety experienced by undergraduate students studying at music teaching departments will be identified. Recognizing this state of anxiety will help the students at cognitive, emotional and psychomotor domains. It is important to understand whether the state-trait anxiety of Music Teaching Undergraduate Program students is differentiated according to various variables with the dimensions discussed.

2. Methodology

In this study where the quantitative data obtained from the students of the Music Education Undergraduate Program were processed, a descriptive survey model was administered in order to determine the state-trait anxiety levels (Karasar, 2005).

2.1 Study Group

The study group of this study is composed of undergraduate students (n = 77) studying musical instrument education at the Department of Music Education under Faculty of Education in Gaziosmanpaşa University, Tokat, as of 2018-2019 fall semester. 36.19% of the participants are female and 23.1% are male. Instrument distribution is 17.71% violin, 9.24% viola, 4.62% cello, 15.48% flute, 6.93% guitar, 6.88% baglama, and 0.86% oud.

2.2 Data Collection Tools

A scale was used to determine the state and trait anxiety levels of the students at the Department of Music Teaching. In order to determine the state-traitanxiety levels of the students, the "State-Trait Anxiety Inventory" developed by Spielberg et al. (1964) was used. The state anxiety scale provides information about instant emotions whereas the trait anxiety scale measures emotions related to a wide process. The State-Trait Anxiety Inventory is a 20-item and 4-point Likert scale.

2.3 Data Analysis

In order to determine state-trait anxiety and instrument exam performance anxiety levels of undergraduate music teaching students in terms of the variables determined in the study, "Smirnov" analysis was used for total anxiety scores," Anova" for the difference between state-traitand total anxiety levels by the instrument difference, school year and academic achievement variables and "ttest" for the difference in the same anxiety scores by gender. Normality assumption is met. Therefore, parametric tests used.

3. Findings

The findings obtained in line with the research purposes of the study are presented. The average scores of state and trait anxiety levels of undergraduate music teaching students are given in Table 1.

Table 1. Difference Between State and Trait Anxiety

Variables	n	Mean	S D	t	df	p
State-Trait Anxiety	77	5.16883	7.40271	6.127	76	.000

Table 1 shows a significant difference between state and trait anxiety. The mean scores of state-trait and total anxiety of undergraduate music teaching students by gender are given in Table 2.

Table 2. T-Test Results of State-Trait Total Anxiety Scores by Gender

Variables	n	Mean	SD	t	df	p
State-Trait Anxiety						
Female	47	40.2766	5.58998	-1.960	75	.884
Male	30	42.8000	5.37812			
Trait Anxiety						
Female	47	47.7447	4.71569	2.825	75	.269
Male	30	44.3667	5.69624			
Total Anxiety						
Female	47	88.021	7.7837	3 .450	75	.621
Male	30	87.1667	8.64265			

The results of the t-test on the state-trait and total anxiety levels of students by gender, anxiety levels of females and males were found to be different from each other. Trait anxiety ($t_{0.05: 75} = 2,825$) levels of female students (X = 47.7447) is higher than that of male students ($\bar{x} = 44.3667$). State anxiety ($t_{0.05: 75} = -1,960$) level of female students ($\bar{x} = 40.2766$) is lower than that of male students ($\bar{x} = 42.8000$). Total anxiety ($t_{0.05: 75} = .450$ level of female students ($\bar{x} = 88.021$) is higher than that of male students ($\bar{x} = 87.1667$).

The mean scores of state-traits and total anxiety levels of undergraduate music teaching students by instruments are given in Table 3.

Table 3a. Descriptive Statistics of State-Trait and Total Anxiety Scores by Instrument

Variables	n	Mean	SD
State Anxiety			
Violin	23	39.86	4.722
Viola	12	41.25	5.986
Cello	6	37.00	3.577
Flute	18	40.83	3.944
Guitar	9	45.11	7.540
Baglama	8	43.87	6.379
Oud	1	51.00	
Total	77	41.25	5.611
Trait Anxiety			
Violin	23	47.73	4.614
Viola	12	48.58	3.396
Cello	6	45.33	4.633
Flute	18	45.33	5.520
Guitar	9	43.33	5.024
Baglama	8	46.75	8.614
Oud	1	42.00	
Total	77	46.42	5.346
Total Anxiety			
Violin	23	87.60	7.396
Viola	12	89.83	6.520
Cello	6	82.33	5.537
Flute	18	86.16	6.519
Guitar	9	88.44	10.560
Baglama	8	90.62	12.850
Oud	1	93.00.	
Total	77	87.68	8.083

Table 3b. Anova Results of State-Trait and Total Anxiety Scores by Instrument

Variables	SS	Sd	MS	F	p
State Anxiety					
Between groups	439.683	6	73.280	2.626	.024
Within groups	1953.123	70	27.902		
Total	2392.805	76			
Trait Anxiety					
Between groups	230.672	6	38.445	1.386	.233
Within groups	1942.185	70	27.745		
Total	2172.857	76			
Total Anxiety					
Between groups	371.444	6	61.907	.943	.470
Within groups	4595.075	70	65.644		
Total	4966.519	76			

When Table 3.b is examined, according to the Anova results, there is a statistically significant difference between the mean scores of state-trait and total anxiety of undergraduate music teacher students by the instruments they play. The mean scores of state-traits and total anxiety levels of undergraduate music teaching students by school years are given in Table 4.

Table 4a. Descriptive Statistics of State-Trait and Total Anxiety Scores by School Years

Variables	n	Mean	SD
State Anxiety			
Freshman	17	41.00	4.636
Sophomore	20	40.50	4.594
Junior	22	41.77	7.144
Senior	18	41.72	5.706
Total	77	41.25	5.611
Trait Anxiety			
Freshman	17	47.76	4.724
Sophomore	20	45.80	5.001
Junior	22	45.59	5.770
Senior	18	46.88	5.860
Total	77	46.42	5.346
Total Anxiety			
Freshman	17	88.76	6.638
Sophomore	20	86.30	6.408
Junior	22	87.36	9.224
Senior	18	88.61	9.756
Total	77	87.68	8.083

Table 4b. Anova Results of State-Trait and Total Anxiety Scores by School Years

Variables	SS	Sd	MS	F	p
State Anxiety					
Between groups	439.683	6	73.280	2.626	.024
Within groups	1953.123	70	27.902		
Total	2392.805	76			
Trait Anxiety					
Between groups	230.672	6	38.445	1.386	.233
Within groups	1942.185	70	27.745		
Total	2172.857	76			
Total Anxiety					
Between groups	371.444	6	61.907	.943	.470
Within groups	4595.075	70	65.644		
Total	4966.519	76			

According to Table 4.b., there is significant differences between the mean scores of the state-trait and total anxiety levels of undergraduate music teaching students according to the school year variable. The mean scores of state-traits and total anxiety levels of the undergraduate music teacher students by their academic achievement scores are given in Table 5.

Table 5a. Descriptive Statistics of State-Trait and Total Anxiety Scores by Academic Achievements

Variables	n	Mean	SD
State Anxiety			
AA (90-100)	32	43.18	6.166
BA (85-89)	8	41.12	2.416
BB (75-84)	16	42.37	5.018
CB (70-74)	6	34.50	4.415
CC (60-69)	7	37.57	5.094
DD (45-54)	2	40.00	1.414
FD (40-44)	4	39.50	1.914
FF (-39)	2	40.00	1.414
Total	77	41.25	5.611
Trait Anxiety			
AA (90-100)	32	46.56	6.164
BA (85-89)	8	45.37	5.153
BB (75-84)	16	46.81	4.929
CB (70-74)	6	48.66	2.658
CC (60-69)	7	45.28	4.386
DD (45-54)	2	45.00	1.414
FD (40-44)	4	49.25	4.272
FF (-39)	2	38.50	4.949
Total	77	46.42	5.346
Total Anxiety			
AA (90-100)	32	89.75	9.231
BA (85-89)	8	86.50	5.099
BB (75-84)	16	89.18	8.565
CB (70-74)	6	83.16	5.845
CC (60-69)	7	82.85	4.947
DD (45-54)	2	85.00	2.828
FD (40-44)	4	88.75	2.500
FF (-39)	2	78.50	6.363
Toplam	77	87.68	8.083

Table 5b. Anova Results of State-Trait and Total Anxiety Scores by Academic Achievement

Variables	SS	Sd	MS	F	p
State Anxiety					
Between groups	439.683	6	73.280	2.626	.024
Within groups	1953.123	70	27.902		
Total	2392.805	76			
Trait Anxiety					
Between groups	230.672	6	38.445	1.386	.233
Within groups	1942.185	70	27.745		
Total	2172.857	76			
Total Anxiety					
Between groups	371.444	6	61.907	.943	.470
Within groups	4595.075	70	65.644		
Total	4966.519	76			

There is a significant difference between the mean scores of state-traits and total anxiety levels of undergraduate music teaching students in table 5.b.

4. Conclusions

According to the results of the study, moving from the performance anxieties of music teaching department undergraduate students at the instrument exams, the following results are obtained in the study: There is a significant difference between the state and trait anxieties of undergraduate music teaching students. It is seen that the trait anxiety experienced by students affect their state anxiety. Individuals with a higher level of anxiety in their daily lives experience state anxiety at a more intense and frequent level than others. When the state-trait and total anxieties of undergraduate music teaching students are examined according to gender, female students have higher trait anxiety than male students on average. Male students' state anxiety, however, was found to be higher than that of females. When it comes to total anxiety, females have higher total anxiety than males. When the state-trait and total anxieties of undergraduate music teaching students are examined according to instruments they play, the trait anxiety level range as viola, violin, baglama, cello=flute, guitar and oud respectively. When it comes to state anxiety level, the range occurs as oud, guitar, baglama, viola, flute, violin and cello respectively. The range is as oud, baglama, viola, guitar, violin, flute and cello respectively in total anxiety levels. When the state-trait and total anxieties of undergraduate music teaching students are examined according to school years, the freshman students are seen to have the highest trait anxiety on average. This is followed by senior, sophomore and junior students respectively. Juniors have the highest state anxiety. They are followed by senior, freshman and sophomore students respectively. When it comes to total anxiety, the most anxious students are the freshman students followed by senior, junior and sophomore students respectively.

When the state-trait and total anxieties of undergraduate music teaching students are examined according to their academic achievement scores, a significant association was found between the academic achievements of the students and their state anxiety levels. Besides, the anxiety levels of students that emerge during the performance has positively and negatively reflected in their grades. Thus, a significant difference was found in state anxiety.

5. Discussion

In the study examining the personal features of prospective music teachers and their state anxieties, Topoğlu (2014) found that female students have significantly higher pre-performance anxiety levels than male students. In another study where the state/performance anxiety in music education is compared between the music department and conservatory students, Baydag and Alpagut (2016) found that there is a significant relationship between personality and anxiety and that female students have higher performance anxiety than males. Cırakoglu (2013) Nacakcı and Dalkıran (2011) also found that performance anxiety may be related to personal characteristics. Iusca and Dafinoiu (2011) examined the effects of gender and instrument on the performance anxiety and performance levels of high

school students and found that performance anxiety varies by gender and musical instrument. Aydın and İşgörür (2018) addressed music and performance anxieties of conservatory students educated at the secondary and high school level and found that performance anxiety varies by gender. On the other hand, regarding music education, Küçük (2010) found in his study, examining the relationship between exam anxiety, self esteem and instrumental achievement of prospective music teachers, that gender does not have any impact on the exam anxiety of students. Kılıç (2018) also contends based on his study that no significant difference was seen in the anxiety levels of students by gender and age. In another study, Yokuş et al. (2013) found that there is no significant difference in the trait anxieties of prospective music teachers by the gender variable. The results of the foregoing studies are in parallel with the findings of this study. In addition to this, there are also numerous studies supporting these findings in other areas of education. Although the students of bow instruments were expected to have higher anxiety levels, students of string instruments were seen to have higher anxiety levels in our study. Iusca and Dafinoiub (2012) found that among undergraduate students, students of bow instruments have higher anxiety levels than those of piano and wind instruments.

According to the results of this study, the state-trait and total anxiety levels were seen to be higher among the freshman and senior students in terms of school year. It can be thought that the fact that the freshman students are evaluated by the commission for the first time may lead to this outcome. And the senior students can be thought to have anxieties related to their future. However, the anxiety levels of students studying at each undergraduate program play an active role. In his study identifying the differences in the music performance anxiety levels between the younger and older classes in the music teaching undergraduate program, Edmonson (2012) fund that the music performance anxiety may affect the musicians of any professional level. Kılıç (2018) found that the senior students have significantly higher exam performance anxiety levels and are widely concerned about their futures while the freshman students have lower levels of anxiety.

According to the results of this study, it is seen that academic achievement scores is associate with the state-trait and total anxiety levels. It is seen that there is an internal consistency between the performances exhibited by the students and their self evaluations in the scales distributed to them. Besides the commissions in the exams should be careful when grading, and maximum effort should be exerted in order not to reflect the instructor-student relations to the instrument exam grade.

Moving from these results, students should be able to control their anxieties as well as exhibiting their musical and technical skills through their performances in the instrument exams or concerts. Therefore, a musician should attach a great importance to develop a conscious approach to manage his/her performance anxiety, on a par with the importance he/she attaches to his/her technical and musical development from the beginning of the school life. Breathing has an important role in reduction of the students anxiety levels. So technical breath training may take part of the courses in which parallel with the instrument or voice training involving music education program.

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