Performance Anxiety and Academic Success Level Examination of Students in Turkey

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ARTICLE INFO	ABSTRACT
	Within this scope, "performance anxiety" grades of students being educated in music education branches, conservatories and fine arts were assessed in respect to different variables (n=306). Research was carried out in order to reveal how relations of performance anxiety and academic success levels of students receiving professional music education in different universities could differ among variables. "Kenny Music Performance anxiety" inventory developed by Kenny (2004) and adopted to Turkish in order to measure "music performance anxiety level" were used in study. Research data, frequency percentage (%) of variables (f) and (ss) values given for M.P.A inventory, "one-way analysis of variance", independent (unrelated) group t-test, M.W.U and Kruskal-Wallis tests were used. At the end of the research it was determined that there was negative relation between "musical performance anxiety" and "academic success" levels.

INTRODUCTION

"Music education" phrase has different definitions and associations in different disciplines and countries. In this point, discussions about applicability of specific theoretical idea universally continue. However music education has several different variations comparing to other education programs. Hargreaves (2001) mentioned that England and USA about the scope of music education and accepted applications universally more than locally. Famous philosophers, authors and trainers emphasized the point of music in the life of human and reorganized that music should be used as education tool (Bilen, 1995).

Ordinary rules are not valid for music education and training. Because commonrules can't be implemented in music field. Learning process which is received since childhood in music is mainly gathered in three titles. They are known as gaining music information and experience, bearing in mind and developing music ability. Accordingly, as we have a memory which requires information and experience, we have nearly automatic memory which is shown all music abilities (Clarke, 2001).

One of the main key elements of development age requirements is self-esteem. Experiences including psychological successes constitute the base of individual about abilities of person. According to Schmuck and Schmuck (2001) academic self-esteem of students is affected from feedbacks received from class mates and teachers. This contagion actualizes as increase or decrease of academic self-esteem (Schmuck and Schmuck,2001).

Anxiety is one of the most important factor that deeply effects musical self-esteem level. It is known, individuals associating with art and displaying performance on stage have high anxiety levels (Tokinan, 2013).

Anxiety is insistent, aimless pathologic fear reaction. Anxiety is an observable reaction which was occurred due to stress conditions, sadness, distemper (Akt. Özgüven, 1998). Mathison (1977) defined anxiety as the situation which emotions are not certainly explained (Cheung, 2006). Two specifications of anxiety are directionlessness over repetitive ideas and tendency of thinking the deterioration of works (Tallis, 2003).

Musical performance in music psychology field is explained with psychology of artist, rendering and how audience were effected musically and emotionally. Shortly it is defined as; stage an artwork for audience.For that reason, esthetical life fields should combine within composer-artist and audience. Good and right transferred musical messages which will be shown by artist have great importance to deliver for societies. Consequently, artist who gets rid of fears and anxieties on stage plays an important role on transferring this musical share (Otacıoğlu, 2008).

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The study is about the anxiety felt on stage, 16,5 % of musicians notified their musical performance was damaged due to the anxiety they had, 16,1 % notified their career was effected due to performance anxiety they had and 21 % notified they had severe pressure during performance (Wesner et.al. 1990).

There are several organizations which provide professional music and instrument education affiliated to State Universities in Turkey (State Conservatories, Fine Arts Faculties and Music teaching departments of Education faculties). Candidate teachers training music teaching are expected to be successful and dominate to teaching. On the other hand, trainers educated in music departments of fine arts are expected to graduate with good grade. For that reason, self-esteem of individuals receiving music education and overcoming with anxiety is important for their development (Otacıoğlu, 2008).

Psychometric approaches concerning music information has been accelerated for twenty years. Especially, USA is the leader in this point. While test types diversify about music field, it is easy to determine test criteria during testing (Otacıoğlu, 2008). According to Kemp (2002), while validity of music test doesn't constitute a problem, it could constitute typical criteria, instrument performance concerning literate or aural abilities. For the measurements in music field while behavioral analyzes and practical works included, "music therapy" and "music education" are especially discoursed.

In the light of the information above mentioned, purpose of research is to examine whether there is a relation between "Performance anxiety and Academic success" grades of student in organizations which provide music education. In this direction, it was aimed to research relation between "performance anxiety and academic success" grades besides the relation of gender, age, organization, instruments of performance anxiety and academic success" grade averages of students who attended research.

METHOD

In this research, it was aimed to perform anxiety and academic success levels of students who are professionally educated

Universe and sample

Sample of research is constituted by total 306 license level students receiving professional music education in different organizations of Turkey. Mimar Sinan University State conservatory (n=17), Istanbul University State conservatory (n=28), Doğu Akdeniz University Education Faculty (n=34), Marmara University Fine Arts Faculty (n=14), Kocaeli University Fine Arts Faculty (n=16), Marmara University Education Faculty (n=51), Karadeniz Technic University State Conservatory (n=17), Dokuz Eylül University Education faculty (n=37), On Sekiz Mart University Education Faculty (n=39), Uludağ University Education Faculty (n=53). Total 306 students are involved in the study. f and % calculations were given in table 1 concerning the education organization.

Table 1."f and % calculations concerning "Education Organization" (n=306)

Organization	f	%
Mimar Sinan U. Fine arts Conservatory	17	5,6
İstanbul U. State Conservatory	28	9,2
Doğu Akdeniz Ü. Music Teaching (KKTC)	34	11,1
Marmara U. Fine arts Conservatory	14	4,6
Kocaeli U. Fine arts Conservatory	16	5,2
Marmara U. Music Teaching	51	16,7
Karadeniz Technic U. Conservatory	17	5,6
Dokuz Eylül U. Music Teaching	37	12,1
Çanakkale Onsekiz Mart U. Music Teaching	39	12,7
Uludağ U. Music Teaching	53	17,3
Total	306	100,0

55,2 % of students selected by random sampling attended research in 2014-2015 education period. Most of the students are included between 21-24 age group with 56,2 % and 1st class (43,8 %) and 2nd class (28,8 %) students constitutes most of the sampling. When individual instruments of students in school were evaluated, it is seen that 42,2 % of instruments were bowed instruments, 20,3 % were stringed, 19,9 % were wind, 11,1 % were opera, 6,2 % were piano and 0,3 % were percussion. Demographical specifications of students were given in Table 2.

Table 2."f and % calculations concerning "Education Organization" (n=306)

Variable	Group	f	%
Gender	Male	169	55,2
	Female	137	44,8
Age	18-21	83	27,1
	21-24	172	56,2
	24-27	32	10,5
	27 and over	19	6,2
Class	1.	134	43.8
	2.	88	28.8
	3.	46	15.0
	4.	38	12.4
Individual instrument in School	Bowed	129	42,2
	Wind	61	19,9
	Percussion	1	0,3
	Stringed	62	20,3
	Opera	34	11,1
	Piano	19	6,2

Data Collection Tools

Data in this research were collected by the use of Kenny Music Performance Anxiety Inventory (K-MPKE) which was developed in order to determine anxiety levels by Kenny in 2004 and in addition 10 questionnaire was prepared by researcher in order to collect personal data.

Music performance anxiety inventory: Kenny music performance anxiety inventory was developed by Kenny in 2004 (K-MPKE), was developed in order to measure experiences before performance, psychological fencelessness underlying, assist artists damaged from performance anxiety and focus on more comprehensive treatments and more available treatments (Kenny,2006). Items which correspond to each theoretical compounds of Barlow, evoke anxiety expressions in (such as directionlessness, unpredictability, negative emotions, and situational indicators); distraction (such as duty and self-evaluation focus, negative evaluation fear), physiological stimulation and expressions for memory prejudice are included (Kenny

&Osborne, 2006). In Likert Type scale, agree rates are determined by marking with the numbers between "I never disagree" and "I agree".

In the analysis of inventory implemented 696 students (18-23 old) training first, second, third and fourth classes of music education department in several universities of Turkey and Turkish language adaptation was carried out by the help of Tokinan (2013), 25 ıtems Cronbach Alfa Coefficient was founded.895.

In consequence of analyzes performed by researcher, it was seen that Kenny Music Performance anxiety inventory Turkish adaptation was valid and reliable measuring tool. Expression in septet Likert Type manner inventory were graded as "I never disagree" (0) and "I agree" (6) and total points could vary 0 and 150. While 105 points and over indicates higher musical performance anxiety, 45 points and lower shows reduced musical performance anxiety.

Process

Research data were collected in several stages. Firstly descriptive distribution specifications of students who constitute research group were relational solutions which were determined accordingly to the purposes of research actualized. This statistical analysis was made with the data obtained by research. Non-parametric Kruskal-Wallis, Mann Whitney U (post hoc LSD for after) single direction variance analysis (Anova) test were implemented.

In addition simple regression analysis was implemented in order to show whether academic success values are affected from performance anxiety scale values or not and for showing in what extent it is affected.

Significance level in all statistical calculations were accepted as .05. When meaningfulness value were founded lower than .05 (p<.05), variations and relations among independent variable groups (categories) were accepted "significant" and results were assessed accordingly.

FINDINGS

In this section of research, numeric data obtained from statistical analyzes implemented in research were tabulated and interpreted.

General descriptive values belonging to "Musical Performance anxiety" scales were given in Table 3.

Table 3. Descriptive statistics related musical performance anxiety level of students (N=306)

Scale	(min. and max. grades to be got)	Min. and max. grades taken	$\overline{X}$	ss
Music performance anxiety inventory	(0-150)	8-144	68,38	28,26

Descriptive statistics concerning scale which was used in order to measure in what extend students feel anxiety before musical performance or during performance were given in Table 3 above. Accordingly, anxiety average of students attended research was calculated as 68,38±28,26. That shows musical anxiety level of students was "medium". It was calculated 21,6 % of students' (66 persons) music performance anxiety level "lower" (between 0 and 45), 66,7 % (204 persons) musical performance anxiety level "medium" (46-104) and 11,8 % (36 persons) musical performance grade "higher". It is understood that most of the students' music performance anxiety was "medium".

Table 4.ANOVA test which was performed to determine difference of "Music performance anxiety" levels with "age variable" (N=306)

Measurement.	Age	Descriptive statistics			ANOVA		Difference
		n	$\overline{X}$	ss	F	p	
Music Performance anxiety	18-21 (1)	83	74,08	25,85	4,10	0,017*	1 and 2, 3
	21-24 (2)	172	63,34	27,91			
	24 and over (3)	51	60,57	32,33			

* p<.05

Depending on ages of students, it was foundedthat music performance anxiety levels were found to differentiate significantly [$F_{(2; 303)}$=4,10 and p<0,05]. According to post-hoc LSD test which was carried out to determine which age groups have significance difference after Anova test; anxiety levels of students between 18-21 age group is higher than other students ($\overline{X}$ 18-21=74,08; $\overline{X}$ 21-24=63,34 ve $\overline{X}$ 24 and over=60,57).

Table 5.ANOVA test (N=306) which was carried out to determine differences of "musical performance anxiety" levels with "class" variable

Measurement	Class	Descriptive statistics			ANOVA		Difference
		n	$\overline{X}$	ss	F	p	
Music performance anxiety	1.	134	68,54	28,75	0,56	0,640	-
	2.	88	65,02	27,75			
	3.	46	68,40	27,73			
	4.	38	72,68	28,21			

* p<.05

Depending on class variable of students, according to Anova test which was carried out whether grades concerning music performance anxiety levels were differentiate or not, in which classes the students are, musical performance anxiety grades don't cause significantdifference (p>.05).

Table 6. Kruskal-Wallis Test (N=306) which was carried out to reveal differences for "musical performance anxiety" levels of "individual instrument" variable

Measurement	individual instrument	Descriptive statistics		Kruskal-Wallis			Difference
		n	order average	X^2	sd	p	
Music performance anxiety	Stringed (1)	129	158,09	9,89	4	0,042*	5 with 1, 2, 3 ,4
	Wind (2)	61	165,48				
	Wired (3)	62	149,40				
	Opera (4)	34	150,03				
	Piano (5)	19	95,42				

*p<.05

Depending on individual instruments of students it was found that music performance anxiety levels were founded to significant difference (X^2=9,89 and p<0,05). According to post-hoc Mann-Whitney Test which was carried out to find which instrument groups have difference; anxiety levels of students whose individual instrument was piano (Group 5) is lower than other groups (order average stinged=158,09; order average wind=165,48; order average wired=149,40; order average opera=150,03 and order average piano=95,42).

Table 7. Kruskal-Wallis Test (N=306) which was carried out to determine "musical performance anxiety" levels of with educated organization "variable differences.

Dimension	Educated organization	Descriptive statistics		Kruskal-Wallis			Difference
		n	average	x^2	sd	p	
Music performance anxiety	Mimar Sinan GSK (1)	17	175,82				
	İstanbul Ü. K. (2)	28	157,96				
	Doğu Akdeniz Ü. Music Fac. (3)	34	125,78				
	Marmara Ü. G.S.F. (4)	14	175,11				
	Kocaeli Ü. G.S.F. (5)	16	128,88				1, 4, 6 with 3, 5, 7, 9
	Marmara Ü. Music Ö. (6)	51	173,15	14,63	9	0,020*	
	Karadeniz Technic Ü. Cons. (7)	17	124,64				
	Dokuz Eylül Ü. Music Ö. (8)	37	152,17				
	Çanakkale Onsekiz Mart Ü. Music Fac.. (9)	39	122,94				
	Uludağ Ü. Music Fac.. (10)	53	151,26				

* p<.05

Organization of students who have attended research causes significant differentiation on music performance anxiety levels (X^2=14,63 and p<.05). According to Post-hoc Mann-Whitney test result; music performance anxiety levels of students (Group 1,4 and 6) educating at Mimar Sinan GSK, Marmara Ü. GSF and Marmara Ü. Music teaching is higher than students educating at Doğu Akdeniz U. Music Fac., Kocaeli U. Fine arts faculty, Karadeniz Technic U.. Conservatory and Çanakkale Onsekiz Mart U. Music teaching departments (group 2, 3,5,7 and 9). (order average Mimar Sinan GSK=175,82; order average Doğu Akdeniz U. Music teaching.=125,78; order average Marmara U. GSF=175,11; order average Kocaeli U. Fine arts faculty.=128,88; order average Marmara U. Music Ö.=173,15; order average Karadeniz Technic U. conservatory.=124,64 and order average Çanakkale Onsekiz Mart U. music teaching Ö.=122,94).

Table 8. Pearson results carried out for relation between "Music performance anxiety" and "Academic success" grades.

Measurement	n	$\overline{X}$	ss	r	p
Academic Success	306	58.44	14.65	.655	.003*
M.P.K	306	67.27	21.55		

*p<.01

It was determined that there was negative relation between "musical performance anxiety and academic success levels" in Table 8. When specifications of inventories we have considered, while grades received from academic success was positive. "Higher" Grades received from Musical performance anxiety level was positive.

DISCUSSION

In this research, it was aimed the relation between "performance anxiety and academic success" grade averages of students who attended research.

According to the research that was made about this area, for example Leodari and Syngollitou (1998) revealed that male students have higher motivation and self-esteem for academic success and motivation. According to Larkin and Abel (1998) male musicians feel less performance anxiety than female musicians. According to Iusca and Dafinoiu (2011), LeBlanc et.al. (1997), female musicians perceive existence of audience as menacing. Another similar data was found in data of Şentürk and Çırakoğlu' (2013) research. Here again, permanent anxieties and performance anxiety levels of male musicians were determined lower than females and females were determined higher as significantly.

Depending on individual instruments of students in school, it was found music performance anxiety levels were significantly different.According to test results carried out which instrument groups have significant difference, anxiety levels of students who have piano as individual instrument is lower than other students. Reason for that piano which is considered principle instrument in music education is an instrument accepted either solo or accompanying. For that reason, whether stringed or wind sound performance, other instruments are difficult to appear without accompanying. That could cause lower anxiety levels of pianists depending on more experiment of pianists.

In consequence of research there is negative relation between "academic success" and "musical performance anxiety" grades of students and this situation is not an expected result. Because, when considered generally it is expected that, a musician who feels academically successful, should be less anxious during performance.

There are some implications that musicians were affected of "musical performance anxiety" exceedingly and become as not to perform occupation. For Çakıroğlu (2013), when researches which were carried out abroad were guided, it was seen behavioral technics and cognitive therapy is affected in this matter and efficient comparing to other techniques. Therapy approach which especially started to be known with "BDT" abridgment of Beck in 1979; have been the most used therapy technique among the other techniques which were implemented before musical performance anxiety therapy.

Kendrick et.al. (1982) compared behavioral therapy results which they carried out on fifty three virtuosos (pianist) who feel musical performance anxiety problems with virtuosos who did not appear and receive therapy in control group. When they checked the results, they noticed there was no difference between two working groups. On the other hand, in five weeks of monitoring program implemented to the same group, ones in cognitive behavioral therapy group decreased comparing to control group significantly.

Examination of these kind of data which one could accord to social and working environment techniques will be correct. For Revesz (2001) problem in the center of music psychology is acceptance of music as a definition of musical creativity. On the other hand, this problem is considered as a stimulant which stimulates musical emotion and expression. Consequently, psychology of music places around "performance" starting from each fields of music and develops.

In the direction of findings obtained from research and concerning literature, when lack of self-esteem on professional music education receiver students and teacher candidates is a psychometric disease idea, in order to remove this situation which pushes student's occupational and personal lack of self-esteemed condition, it could be recommendedpsychological counseling and guidance departments in education faculties can organize scientific meetings and seminars about the matter.

In addition in order to remove anxiety factor which affects stage performance negatively or decrease it other methods of MPK, Bioffedback, meditation and yoga, alexander technique, hypnotherapy and music therapy methods could be used (Çırakoğlu, 2013).

At the end of the research it can be seen that a student or a musician who fells academically successful, could be less anxious during performance. So it can be advised that, every musician who deals music professionally, should be trained about getting rid of his/her anxiety.

REFERENCES

Larkin, K. T. & Abel, J.L. (1990). Anticipation of performance among musicians: *Psychology of Music, 18*(2), 171-182.

Austin, J.R. (1988). The effect of music contest format on self concept, motivation, achievement and attitude of elementary band students. *Journal of Research in Music Education, 36*, 95-107.

Barlow, D. H. (2000).Unraveling the mysteries of anxiety and its disorders from the perspective of emotion theory. *American Psychologist.* 55(11), 1247-1263.

Bilen, S. (1995). *Effect of accompanying learning over music teaching and motive processes..* Unpublished doctorate thesis, Dokuz Eylül University, Social science institution.

Cheung, Hoi Yan (2006). Factors affecting the state anxiety level of higher education students in macau: the impact of trait anxiety and self-esteem. *Assessment and Evaluation in Higher Education,* Vol.31 , No.6 (December) p 709-725.

Çırakoğlu, O.C. (2013). Enemy on the stage: Revision for performance anxiety for musicians. *Turkish psychology articles, 16* (32), 95-104.

Şentürk, Ç.G. & Çırakoğlu, O.C. (2013). Development of a performance anxiety scale for music students. *Medical Problems of Performing Artists, 28,* 199-206.

Clarke, E.F. (2001). Meaning and specification of motion in music. *Musicae Scientiae, 5* (2), 213-234.

Dweck, C.S., & Leggett, E.L. (1988). A social- cognitive approach to motivation and personality. *Psychological Review, 95,* 256-273.

Fishbein, M., Middlestadt, S., Ottati, V., Straus, S. and Ellis, A. (1988). Medical problems among ICSOM musicians: Overview of a national survey. *Medical Problems of Performing Artists,* 3, 1-8

Hargreaves, D.J. (2001). *The developmental psychology of music.* Cambridge University Pub.

Harter, S. (1992). The perceived competence scale for children. *Child Development53,* 87-97.

Iuscaa, D. & Dafinoiu, I. (2011). Performance anxiety and musical level of undergraduate students in exam situations: the role of gender and musical instrument. *Procedia - Social and Behavioral Sciences 33,* 448-452.

Karasar, N. (2009). *Scientific research method.* Nobel Publication, Ankara.

Kendrick, M. J., Craig, K. D., Lawson, D. M. & Davidson, P. O. (1982). Cognitive and behavioral therapy for musical performance anxiety. *Journal of Consulting and Clinical Psychology, 50*(3), 353-362.

Kenny, D. T. (2006). *Music performance anxiety: Origins, phenomenology, assessment and treatment.* Context: A Journal of Music Research.

Kemp, A.E. (2002). The education of professional musician. *Psychology of Music,* 10 (2), 48-58.

Kim, Y. (2008). The effect of improvisation-assisted desensitization, and music-assisted progressive muscle relaxation and imagery on reducing pianists' music performance anxiety. *Journal of Music Therapy, 45*(2), 165-191.

Leondari, A. & Syngollitou, E.,(1998). Academic achievement, motivation and possible selves. *Journal of Adolescence 21*(2), 219-222.

LeBlanc, A., Jin, Y. C., Obert, M. & Siivola, C. (1997). Effect of audience on music performance anxiety. *Journal of Research in Music Education, 45*(3), 480-496.

Lendon, G. H. (1982). "I played the drum, when the class sang". *Music Educators Journal, 68*(6), 36-37.

Otacıoğlu, G.S. (2008). *Music Psychology.* İstanbul: Öğreti Publication.

Özgüven, İ. E. (1998). *Psychological Tests.* Ankara: PDREM publication.

Revesz, G. (2001). *Introduction to the psychology of music.* Norman, Oklohoma: University of Oklahoma Pres.

Schmuck, A. R., & Schmuck, A. P. (2001). *Group processes in the classroom* (8. Edition).Hightstown:The McGraw-Hill Companies.

Stanton, H. E. (1994). Reduction of performance anxiety in music students. *Australian Psychologist, 29,* 124-127.

Tallis, F. (2003).*Surpassing anxieties.* İstanbul: Sistem Publication.

Tokinan, B. (2013). Kenny müzik performans kaygısı envanterini türkçe'ye uyarlama çalışması. *Ahi Evran University Kırşehir Eğitim Fakültesi Dergisi (KEFAD).* Cilt 14, Sayı 1, Nisan 2013, 53-65.

Weiner, B. (1986). *An attributional theory of motivation and emotion.* New York: Springer-Verlag.

Wesner, R. B., Noyes, R. and Davis, T. L. (1990).The occurrence of performance anxiety among musicians. *Journal of Affective Disorders,* 18, 177-185.

Valentine, E., Fitzgerald, D., Gorton, T., Hudson, J. & Symonds, E. (1995). The effect of lessons in the Alexander technique on music performance in high and low stress situations. *Psychology of Music*, 23, 129-141.