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Personal and Regulatory Resources in Achieving Educational and Professional Goals in the Digital Age

ACTIVITY SELF-REGULATION AND ANXIETY LEVEL IN AVOCATIONAL AND PROFESSIONAL MUSICIANS

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Abstract

A comparative study was established, considering the various characteristics of activity self-regulation, as well as their comparison with the levels of anxiety in musicians, depending on their specialization, as well as professional status. It was established that professional vocalists have clearer ideas about their capabilities, as well as a higher level of personal anxiety than avocational vocalists. Professional instrumentalists are less anxious and more collected at the time of execution than avocational instrumentalists or vocalists. Professional musicians, unlike avocational musicians, have a higher level of anxiety and less pronounced self-control of the self-regulation dynamics. The data obtained are of particular importance for students of musical educational institutions, as they emphasize the importance of maintaining control over the level of anxiety in order to increase their professional status. Establishing the degree, showing development of self-regulation skills and the level of anxiety, can be useful for a musician, as it will help to identify a number of possible problems that have a destructive or inhibitory effect on professional skills.

Keywords: Self-regulation, anxiety, musician, success, fear.

1. Introduction

To achieve significant heights in professional activity, a musician must improve his professional skills, enriching them with great penetration into the musical culture of performed works, every day throughout his life. A huge influence in vocational training is played by the figure of the teacher, who, in addition to the educational function, performs a regulatory function, thereby ensuring control over the student's behavior and actions. The internal control over the behavior is ensured by the student's emerging self-regulation skills, which are formed due to the teachers, parents, and other persons authoritative for the student. Of course, it only happens subject to the student's counter-activity, his readiness to be the author of his own destiny (in psychology this is called subjectivity, in pedagogy it is independence). Ultimately, the success of a person's activity, as well as his professional status, depends on the development degree of self-regulation mechanisms.

2. Problem Statement

The situation in 2020, due to the coronavirus, helped to accelerate the digitalization of education. However, the formation of a musician in such conditions seems to be doubtful. The development of musical skills is not comparable to acquiring knowledge in the exact or the humanitarian sciences. It should be strictly controlled and adjusted by the teacher, in case of student's muscle or psychological clamps. Distributed online conferences, which replaced standard classes at the time of self-isolation, lead to weakening student-teacher communication, which can affect the quality of the performance technique, as well as the health of the musician. Improper breathing can lead to emphysema in the lungs of a vocalist or a musician playing a wind instrument. The presence of tension during the work of the instrumentalist can lead to cramping in the muscles, as well as the development of partial paralysis. Nevertheless, the advantages of online conferences, consisting in the presence of greater freedom for the student, as well as the opportunity to be in a comfortable atmosphere during classes, cannot be ignored. A temporary increase in comfort can improve the overall well-being of the student and adjust the existing level of anxiety.

Anxiety can impede the development of an individual self-regulation skills. As a rule, two types of anxiety are distinguished: situational (reactive), arising during various stressful situations, for example, during a concert, and personal, characterized as a prolonged state, which depends mainly on the person's internal attitudes, and not on external factors. To mobilize the musician's resources, a certain level of anxiety is needed, but increased anxiety can give a rise to distress states that arise during the performance, as well as affect the development of the personality as a whole. However, anxiety is a companion to any person, not just a student or musician. Rephrasing the words of Selye (1976) "Stress is the only music of life. There is no life and passion without stress." But for the successful development of professional abilities of a musician (like any professional), a prerequisite is to maintain anxiety at the optimal level: mobilizing yourself, but not crossing the line on which anxiety becomes destructive. It is not by chance that we mentioned the term "abilities" rather than "skills" to the extent that skills are often defined as "automated and unconscious actions or movements". But under such a definition, convulsions, nerve tics, catatonic movements of limbs, etc., are most suitable.

Reminding the work of Bernshteyn (1990) on "exercise without repetition", the wisdom of the ancients "one cannot go into the same river twice" and the general use of the term "skill", we believe that the definition of Levitov (1964) is the most accurate and consistent: a "skill is an ability fixed by exercise", that is literally the attempts to reproduce the desired movement or action with an assessment of its success and possible changes. When the so-called automated action is completely deprived of consciousness control (at least "lateral" or "from a bird's flight"), for example, consciousness suddenly takes on a new thought, a new option - then the "operator errors" arise. When the action is too automated, the operator loses the possibility of timely correction due to changed conditions (Lomov, 1966; Strelkov 2003). This is of great importance for the musician, since music engagement develops automaticity and meta-cognitive awareness (Appelgren et al., 2019). Reduced concentration during the vocalist's sound production can lead to the voice break, as well as injury to the vocal cords. Excessive concentration on the process can lead to unnatural sound, as well as the occurrence of stresses and clamps in the body. The same is true for the instrumentalist musician. Studies of the musician's activity self-regulation have shown that with age, professional musicians rely less on external factors of self-regulation, for example, teachers, and rely more on internal resources (Araújo, 2015). At the same time, as a rule, the musician's repertoire grows, which leads to an increase in his memory (Talamini et al., 2017). As a result, the independence of the musician grows up, making him self-sufficient.

Nowadays, music is of great importance not only for musicians (Suleymanov, 2018). Properly selected music can have a positive impact on the educational process (Afanas'yeva et al., 2020; Bayrashov et al., 2020; Erkhonina, 2020; Suleymanov, 2016), as well as on the general condition of the listener. It is especially important for researchers dealing with music therapy issues (Hiller & Gardstrom, 2018; Gaitanidis, 2019). Today, the psychology of musical activity, as well as the music influence on human activity, is one of the developing areas of modern psychology (Ascenso et al., 2017; Bongard et al., 2019; Thorpe et al., 2019; Voloshina, 2020; Williamon & Thompson, 2017).

3. Research Questions

In the course of our study, the following questions were explored:

1) How does professional status affect self-regulation skills?

2) How does professional status affect the level of anxiety?

3) How do self-regulation skills change depending on the level of anxiety?

4. Purpose of the Study

As a part of this work, there was a study, examining the skills of activities' self-regulation among musicians of various directions and professional status, as well as a comparison of the obtained data on self-regulation with the levels of anxiety experienced by musicians to identify their relationships.

5. Research Methods

Anxiety study was conducted using the Spilberger and Khanin (2002) questionnaire, adapted by KHanin, consisting of 40 questions. Using this technique, indicators of "situational" anxiety (depending

on changing circumstances) and "personal" anxiety of a defined stable system of values, attitudes, and temperamental characteristics of a person were revealed.

For the study of activity self-regulation, the first two forms of the questionnaire Osnitsky's (2010) "Self-regulation" were used, including 44 questions. The subjects first assessed their lack of any particular features of self-regulation (the first form of the questionnaire is negative) using the answers "yes" and "no", then they evaluated the presence of these features with the same answers (the second form of the questionnaire is positive). Then the subjects' answers on each question were compared and the number of matching answers "yes" was calculated, the number of matching answers "no" and the number of conflicting answers, which are regarded as "reflection errors".

The subjects were musical representatives of various avocational groups, as well as employees of professional musical institutions. 81 people took part in the work, who can be classified according to their skills into the following groups: 1) professional vocalists (14 people), 2) avocational vocalists (19 people), 3) professional instrumentalists (14 people), 4) avocational instrumentalists (10 people), 5) universal professional musicians (3 people), or musicians who use both a voice and some instrument, 6) universal avocational musicians (21 people), 7) professional musicians (31 people), 8) avocational musicians (50 people).

6. Findings

The results of the anxiety and self-regulation study are shown in Table 1 and 2. The perception of musicians about the presence or absence of one or another self-regulation characteristic is evidenced by the meaning of the sections "yes", "no", "reflection errors", the sum of which is reduced to 100% for clarity. For each group of subjects, average values of parameters are given, as well as statistical deviations in parentheses. To test the statistical significance, the Mann-Whitney *U* test criterion was used, which is applied while working with data of nonparametric distributions.

During the analysis of self-regulation skills, the following characteristics were considered: 1) structural-component skills of self-regulation, 2) dynamic characteristics, 3) functional skills and 4) personality-style features. Structural and component skills include such skills as setting goals, modeling possible conditions and situations, creating an algorithm of actions to achieve the desired result, evaluating the result, and also correcting it. The dynamic characteristics include actions and conditions aimed at maintaining self-regulation at a constant level. Such characteristics include caution, confidence in one's actions, plasticity, practicality, and maintaining regulation of activities. Functional skills include skills aimed at detailing and organizing one's actions, which ultimately leads to maximum optimization of the regulatory actions themselves. The personality-style features include such personality traits as initiative, awareness, responsibility, and malleability of education, i.e. disciplinary-volitional qualities.

Table 1. The results of a study of anxiety in musicians

Prof. status	AV (19)	PV (14)	P	AI (10)	PI (14)	p
Situational (reactive)	38.58 (8.9)	38.50 (9.29)	0.913	40.30 (10.98)	37.21 (9.50)	0.396
Level	M	M		M	M	
Personal	44.89 (9.72)	50.43 (7.96)	**0.117**	49.20 (8.38)	45.64 (10.77)	**0.242**
Level	M	H		H	H	

256

Prof. status	UAM (21)	UPM (3)	P	A (50)	P (31)	p
Situational (reactive)	39.95 (6.62)	37.33 (15.18)	1.000	39.50 (8.35)	37.81 (9.60)	0.285
Level	M	M		M	M	
Personal	45.00 (7.11)	49.67 (3.51)	0.337	45.80 (8.44)	48.19 (9.17)	**0.236**
Level	H	H		H	H	

Note: AV – avocational vocalists, PV – professional vocalists, AI – avocational instrumentalists, PI – professional instrumentalists, UAM – universal avocational musicians, UPM – universal professional musicians, A – avocational musicians, P – professional musicians; p – statistical significance, M – moderate anxiety, H – high anxiety. Values in bold and underlined are statistically significant; values in bold are close to statistical significance. For each parameter, average values are given. In parentheses is the statistical deviation.

Table 2. Assessment of the presence or absence of the properties of self-regulation.

	AV (19)	PV (14)	p	AI (10)	PI (14)	p
Structural-component skills						
Yes	67.3	78.0	0.771	60.9	64.3	0.907
No	12.6	6.0	0.444	16.2	14.3	0.977
Reflection errors	20.0	16.0	0.927	22.9	21.4	0.930
Functional skills						
Yes	63.1	60.0	0.675	57.1	71.4	0.884
No	8.4	14.0	0.572	14.3	11.4	0.770
Reflection errors	28.4	26.0	0.308	30.5	17.1	0.838
Dynamic characteristics						
Yes	52.9	54.0	**_0.043_**	55.8	61.3	**0.114**
No	24.7	8.0	0.444	16.3	16.0	0.815
Reflection errors	22.3	38.0	**0.069**	27.9	22.7	**0.151**
Personality-style features						
Yes	62.1	64.0	0.927	63.8	63.2	0.930
No	16.8	16.0	0.636	12.4	19.2	0.703
Reflection errors	21.0	20.0	0.649	23.8	17.6	0.464

	UAM (21)	UPM (3)	p	A (50)	P (31)	p
Structural-component skills						
Yes	73.2	73.3	0.631	66.3	70.4	0.524
No	5.6	6.6	0.965	12.6	10.4	0.644
Reflection errors	21.1	20.1	0.541	21.1	19.2	0.534
Functional skills						
Yes	57.1	66.6	0.760	61.5	69.2	0.487
No	20.8	13.3	0.896	11.7	13.1	0.570
Reflection errors	22.1	20.0	0.827	26.8	17.7	0.317
Dynamic characteristics						
Yes	62.8	60.0	0.663	62.9	57.8	**0.061**
No	17.1	6.6	1.000	15.1	15.5	0.631
Reflection errors	20.0	33.3	0.600	21.9	26.7	**0.071**
Personality-style features						
Yes	66.2	84.6	0.150	63.8	65.2	0.662
No	11.8	15.4	0.631	14.5	18.5	0.676
Reflection errors	22.0	0	0.055	21.6	16.3	0.528

Note: legend: see note table 1.

The results of the study showed that both avocational and professional musicians, in general, have a similar development level of self-regulation skills. Both those and others are able to set goals, as well as adhere to the selected algorithm of actions. However, between groups there are differences in dynamic characteristics. According to the data obtained, professional vocalists have a slightly more accentuated dynamics of self-regulation, as evidenced by the lower value of the parameter of statistical significance ($p = 0.043$) relative to its critical value ($p = 0.050$). Such ratios between the p-calculated and p-critical, as it is known, indicate the presence of a statistically significant difference between the studied groups, in this case quite small. However, in studies with a small sample, like ours, it also makes sense to pay attention to values that are as close as possible to the threshold of statistical significance ($p = 0.050$), for example, such as "reflection errors" for dynamic characteristics ($p = 0.069$). The high value of reflection errors (38 %) among professional vocalists indicates a relatively unstable dynamic level of regulatory actions, which may be due to their increased personal anxiety associated with a high degree of responsibility in the work (table 1). Unlike avocational vocalists, for whom singing is a hobby, for professional vocalists, singing is the main source of income.

Similar results were obtained for instrumental musicians. As close as possible to the threshold of statistical significance, indicating the presence of differences between groups, are the values obtained for the dynamic features of self-regulation ($p = 0.114$). For professional instrumentalists, the dynamic characteristics are more pronounced (61.3 %) than for avocational instrumentalists (55.8 %), which indicates that they have a more developed mechanism of self-control. A lower level of self-regulation dynamics among avocational instrumentalists can be associated with the presence of increased personal anxiety, which is confirmed by the data given in table 1 ($p = 0.242$).

There are much more "universal avocational musicians" than "universal professionals", which may be due to the fact that it is the narrow focus of activity that enhances the musician's skills to a professional level. This ratio does not allow a comparison between avocational musicians and professionals, as was done in other groups earlier.

If we talk about comparing avocational musicians with professional musicians in general, then professionals have less developed regulation dynamics ($p = 0.061$), show a greater tendency to reflection ($p = 0.071$) and have a higher level of personal anxiety than avocational musicians ($p = 0.236$). Such values may indicate an increased tension of professionals, due to the greater degree of responsibility during work.

7. Conclusion

The success of studying in specialized musical educational institutions is closely related to the level of students' ability to form the skills, supporting the organization of educational activities. The presence of a low self-regulation level may be one of the possible obstacles to the transformation of an avocational musician into a professional, and may also signalize the presence of excessive anxiety in the individual. Establishing the degree, showing development of self-regulation skills and the level of anxiety, can be useful for a musician, as it will help to identify a number of possible problems that have a destructive or inhibitory effect on professional skills.

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