

MARIA STRENACIKOVA JR., MARIA STRENACIKOVA SR.

Academy of Arts in Banská Bystrica, Banská Bystrica, Slovakia

ORCID: 0000-0001-5555-0091, m.strenacikova1@aku.sk

ORCID: 0000-0002-7087-9730, strenacikova@aku.sk

Achievement Motivation and its Impact on Music Students' Performance and Practice in Tertiary Level Education

Music schools of higher secondary and tertiary levels aim at preparing professional musicians, particularly, instrumentalists. They comprise a very specific area of education, since the students' practical skills and competencies are at the center of our attention. In addition to acquiring theoretical knowledge, the students must master the skills of playing on their instruments, which form the basis of their future success. The aim of this article is to describe the discoveries made during our exploration of the partial relation between instrumental practice, performance and the music students' achievement motivation in tertiary education in the music departments of universities for the arts. We focus on two dimensions of motivation: the hope of success and the fear of failure. Our results suggest that there is a relation between the students' motivation and their final performance (the final evaluation in the form of grades), but the particular dimension of motivation (avoidance of failure and achievement of success) does not influence the final performance on a statistically significant level. Similarly, motivation for achievement exists in a statistically significant relation to the daily duration of time dedicated to practicing on the instrument, but there is no evidence for any possible relation between the dimension of the musicians' motivation and the duration of their average daily instrumental practice. We have gathered the relevant data from the Vorwerg achievement motivation scale and a number of semi-structured interviews taken from various musicians.

Keywords: hope for success, fear of failure, performance, musical skills, instrumental practicing.

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МАРИЯ СТЕНАЧИКОВА МЛ., МАРИЯ СТЕНАЧИКОВА СТ.

Банскобыстрицкая академия искусств, г. Банска Быстрица, Словакия

ORCID: 0000-0001-5555-0091, m.strenacikova1@aku.sk

ORCID: 0000-0002-7087-9730, strenacikova@aku.sk

Мотивация достижений и её влияние на исполнительскую практику студентов музыкальных вузов

Профессиональные музыкальные учебные заведения стремятся к подготовке музыкантов-исполнителей. Они представляют весьма специфический уровень образования, поскольку

в центре внимания – практические навыки и умения. Помимо теоретического знания, студенты обязаны осваивать навыки инструментального исполнительства, что формирует основу их успеха в будущем. Данная статья нацелена на изложение результатов поиска взаимодействия между исполнительской практикой студентов-музыкантов и приобретением мотивации к обучению на музыкальных факультетах вузов искусств. Авторы сосредоточены на двух аспектах мотивации: надежда на успех и боязнь неудачи. Результаты указывают на связь между мотивацией и окончательным музыкальным исполнением (проверка профессиональной работы подтверждалась оценкой), но при этом один элемент мотивации (избежание неудачи и стремление к успеху) не влияет на окончательное исполнение на статистически значимом уровне. Подобным же образом, мотивация достижений находится на статистически значимом уровне по отношению ко времени, ежедневно выделяемому для занятий на инструменте, однако не существует подтверждений связи между областью мотивации и временем ежедневных музыкальных занятий. Изучение полученной информации проводилось через шкалу мотивации достижения, разработанную Форвергом, а также исследование неформальных интервью.

Ключевые слова: надежда на успех, страх неудачи, исполнение, музыкальные навыки, занятие на инструменте.

Introduction

1. Practice as a means for acquiring practical instrumental playing skills and music performance

The practical skills of instrumental performance are acquired and mastered in a very specific way. For most students it is necessary to understand and slowly traverse through the entire process and all its successive phases, as described by M. Holas (2013), among others.

In the preliminary phase of instruction, the student becomes familiar with the provided task and its components, and he or she studies the constituent motions, thereby activating his or her brain centers, which in themselves are not altogether indispensable for carrying out this particular task. Therefore, the student tends to create many unnecessary and ineffective motions. Gradually, the activated results become differentiated, and inhibitory processes start to occur in those parts of the brain which are not required to become activated for performing. The process of afferentation (the transmission

of neural impulses from the receptor to the center, i.e. the brain) occurs, and the student starts controlling the movements and using the muscle tension more efficiently.

In the second, inhibitory phase, the student reduces the quantity of mistakes, his or her motions become more effective, and many unnecessary motions are eliminated. The newly generated conditional reflexes create a dynamic stereotype. In the phase of stabilization, the dynamic stereotypes become balanced and the motions become automatic. The student is no longer required to pay attention to the technical part of his or her motions and begins to form his or her skills. It is highly advisable to adapt the recently acquired complex skills to various conditions, e.g. by changing the tempo, dynamics, agogics or other parameters in order to prepare the conditions for creative performance on the stage. The final stage of acquiring performance skills is to demonstrate them to audiences during the performance of music.

We understand performance of music as a specific type of performance defined



by various determinants. Some of them, such as central and local skills, non-intellectual factors and instrumental structures, have already been described by R. B. Cattell (1971) [10, p. 94]. The necessary condition for acquiring any kind of skills of instrumental performance is to create clear and accurate projections of performance motion, its speed, ambit and force. The key role is played by sensory-motoric learning, which is based on three kinds of afferentation. Prior receptive afferentation enables the student to sense his or her own motions and the presence of his or her body through the nerve endings in the tendons and muscles, as a result of which he or she acquires the ability to sense the instrument, the hand and body motions. The resultative afferentation helps the student compare his or her projections or ideas of what he or she wanted to achieve with what has actually been performed. The resultative-verbal afferentation is based on the verbal feedback from the teacher or instructor and the potential evaluation of the performed task.

Since mastering the skills of instrumental music takes many years (many people accept the well-known “rule” of 10,000 hours), it is very important for the student to possess and preserve his or her effective motivation.

2. Motivation

Motivation could be defined with three meanings: the sum of motives leading people to engage in any kind of activity, the process of engaging in an activity with a particular outcome, and the trait of personality. In this text we will pay attention primarily to the motives leading students to practice on their instruments.

Generally, motivation can be defined as the mental state of activation of an individual, which includes “*the internal and external factors (phenomena) that*

trigger, target (orient) and energize (dynamize) human behavior” [15, p. 35]. The psychological dictionary defines motivation as “*an internal driving force responsible for initiating, directing, maintaining and energizing emerging behaviors; as a motivational force, (motivation) arises by the activity of external and internal stimulation and its cognitive interpretation...*” [4, p. 320]. In terms of the preparation for musical performance, motivation may be explained as a condition stimulated by certain motives which could trigger practicing, direct it, supply the student with energy to practice even if he or she is not succeeding very well, or when he or she does not have the wish to engage in music-making, and which maintain his or her activity and attention targeted on practicing. J. Višňovský describes the three dimensions of motivation: the dimension of direction, of intensity and of stability. (Višňovský, 2003) The musical literature on the subject also mentions the dimension of persistence, which is determined by “*the degree of ability to resist and overcome various external and internal obstacles that can be appearing when performing the motivated activity.*” [1, p. 222]. Individual dimensions are represented by different motives.

Practicing is activated by different needs, such as the need for success, recognition, actions or activities, the need for prestige, self-realization, cognitive needs, or the need for work (many of which are, according to the Maslow's hierarchy, B-value needs, or meta-needs). The students' interests, i.e. their focus on their musical art, playing a particular musical instrument, the interest in creative activities, the interest in good quality of performances, etc. form the directionality of motivation. The latter is also influenced by their performance attitudes, such as the attitudes toward success, appreciation,

instrumental practicing itself, performance, music, etc. The determinants of practicing for performance also include the so-called performance values, i.e. various different values, which are in some way related to musical activity, such as aesthetic, economic, moral values etc. The target dimension of achievement motivation is provided by performance goals, aspirations, the students' will and their perspective orientation, which demonstrates their efforts to achieve long-term goals.

The motives that influence students' practicing form a complex system, and they can be both of an external and internal character. In the case of external motivation, students often attempt to satisfy some other person, to avoid disappointing him or her, to obtain a reward, to gain recognition from someone, etc. Internal motivation is often represented by the need for self-realization, aesthetic needs, or the need to perform well, e.g., at a concert or competition.

The need for achievement was first described by Murray (1938) within his need-press system as the necessity to overcome obstacles, to apply one's own abilities, and to perform activities as quickly and as well as possible [14, pp. 365–367]. Since that publication, many further theories about achievement motivation have been created.

Since the 1950s, many scholars have studied achievement motivation, its structure, determinants, dimensions etc. (Atkinson, Clark, Lowell, Elliott, Church, Birch, Raynor, Horner, Feather, Grote, James, McClelland, Festinger, Weiner, Kukla, Frieze, Reed, Rosenbaum, Heckhausen, Schuler, Prochaska, and many others). They have emphasized various different aspects of achievement motivation. One of the composite construct descriptions provides, as an example, the Onion Model by Schuler, which interprets achievement motivation

as a complex phenomenon formed by different facets (or layers/dimensions). He also described the structure of achievement motivation and key influences within three areas: self-assurance (fearlessness, independence, confidence in success etc.), ambition (goal setting, competitiveness, engagement, status orientation etc.) and self-control (persistence, internality and self-control) [17, p. 14]. Furthermore, scholars have defined achievement motivation as a construct of two main tendencies in a person: the tendency to avoid failure and the tendency to approach success, often labeled as hope of success and fear of failure (e.g. [18; 19]). Later, Elliot and Harackiewicz (1996) suggested the insufficiency of the idea of the bifactor achievement motivation model, and subsequently three forms of achievement motivation have been discussed. In the beginning of the new millennium, Elliot and McGregor (2001) described as many as four goals for achievement: mastery approach, mastery avoidance, approach to performance and performance avoidance (in [13, p. 64]).

A quantum of research works has focused on various determinants of achievement motivation and its relation to gender, temperament, character, personality traits etc. Chen, Zhang (2011) confirmed the relationship between temperament, personality traits (Big Five) and achievement goals; Rawlings, Tapola and Niemivirta (2017) proved that features of temperament have predictive effects on motivation (such as the sensitivity towards punishment or towards reward). Vorobyeva, Ermakov and Saakyan (2015) provided various types of proof that in the students' perceptions the lower levels of achievement motivation are linked to low levels of sensitivity towards sensations and probabilities, intellectual ergodicity, as well as high levels of neuroticism and impulsivity, and vice versa

[20, p. 32]. Regarding the relationship between achievement motivation and temperament, Řehulková et al. (1995) established that motivation was reduced by an appropriate degree of viscerotonia, and the highest levels of motivation were seen in somatotonics. The association between gender and motivation has been explored, among others, by B. Greene and T. DeBacker, according to whom there do exist differences between the genders: in general, men have fewer goals, in comparison to women, but greater extension, while, on the other hand, expectations about the realm of career are to a greater degree similar in both [3, p. 91].

Research works identifying a positive relationship between achievement motivation and musical performance in school also appear quite often [7; 8]. We have focused on the relation between the dimensions of motivation and the final evaluation in instrumental performance by music students, as well as the average temporal duration of their practice.

Musicians give performances in which they have to demonstrate their musical mastery. If their performance can be evaluated as being successful, they consider it rewarding. Even though many musicians want to perform their best in order to succeed, some of them are motivated by their fear of failure. The ratio of these two motives provides an intensity of motivation. This means that the bigger the fear of failure is, the weaker the achievement motive should be [10].

3. Achievement motivation and performance in school

The subject of achievement motivation appears in the theories of David McClelland and Atkinson. Their research results led to the following conclusion: people with a high level of “need of achievement” are competitive but not power-oriented. They

care mainly about excellent performance and a high level of individual mastery. They wish to show others their remarkable or exceeding performance in a particular field of activity. However, they have no wish to control others. Furthermore, they prefer professions which allow them to reach individual success, among which sports (mainly individual disciplines) and musical professions play a significant role. Since they want to succeed, they usually choose vocations, subjects, courses and activities in which they feel the opportunity for becoming successful. Their anxiety over failure is at a low level [14, p. 373].

The need to avoid failure presents a theme with a negative connotation. It could be manifested as avoidance of doing anything in order not to experience failure, or as a strong effort not to spoil anything, not to fail to achieve something due to hard work.

The two needs described above affect the students' behavior, which according to Hrabal and Hrabal [6, pp. 102–103] can be divided in two groups. From this perspective, they are able to distinguish two groups of students.

The first group consists of students with the predominating need for success. They tend to avoid giving up and continue resisting obstacles. They choose medium-challenging tasks, since they perceive a medium amount of difficulty as such which will enable them to experience success, but at the same time, would create the opportunity for their development (medium-challenging tasks are not entire easy, at the same time not being overly difficult for them). They prefer equal-status partners in competition. They usually plan their way towards acquiring new skills and achieving goals.

Those who try to avoid failure comprise the second group of students. They often experience fear and, thereby, they

demonstrate the tendency of avoiding situations in which they could fail. They choose low- or medium-level challenging tasks, since they feel threatened by competition. Therefore, they prefer to participate in activities where they clearly have the chance to succeed. Only in very exceptional cases they decide to take part in activities which are too challenging, and which they are unlikely to cope with, because they believe that the other pupils would not succeed either. In this case, the students' failure would not demonstrate their inability, because in this case nobody else would perform well at the task either. In certain conditions they find the choice of escaping from the situation to be the best option; such students intentionally avoid stressful situations.

The students' classification into two groups corresponds to the predominance of one of the two basic motives formulated by Sigmund Freud: approach or avoidance. Atkinson (1974) distinguishes two categories of people, according to the particular motive prevailing in them: the type oriented to achieve success and the type oriented to avoid failures [11]. Moreover, considering all the various situational and personality variables, the actual motivation is determined by the probability of success or failure in the future.

In the field of music, some researchers have focused on students from the seventh to the twelfth grades. These scholars have paid attention to the relation between the amount of practice and intrinsic motivation (Schmidt, 2005), the amount of effort and intrinsic motivation [9], etc. Numerous research works have been dedicated to the goals of mastery and those of performance. Ormrod (2004) defined the goals of mastery as the "*desire to achieve competence by acquiring additional knowledge or mastering new skills*" [12, p. 468] and

performance goals as the "*desire to present oneself as competent in the eyes of others*" [Ibid.]. Nielsen (2008) discovered that successful performance depends on the students' abilities rather than their efforts, and that the students with ability-avoidance goals would be less likely to dedicate their time and effort to the challenges of musical studies [16, p. 4].

Since the beginning of research in the field of achievement motivation, many tests, inventories and scales have been created, such as Mehrabian's Scale resulting from achievement motivation, McClelland's Need Achievement Test, Elliot & McGregor's AGQ – 2x2 Achievements Goal Questionnaire and its Spanish adaptation AGQ-R created by Elliot & Murayama, AHA – Arbeitshaltungen (Work Attitude Test) by Kubinger, Ebenhö, D-M-V Dotazník výkonovej motivácie (Achievement Motivation Questionnaire) by Pardel, Hrabovská, Maršalová, LMI – Das Leistungsmotivationsinventar by Schuler and Prochaska, OLMT – Objektiver Leistungsmotivationstest (Objective Achievement Motivation-Test) by Schmidt-Atzert, Harackiewicz, Škála výkonovej motivácie (Achievement Motivation Scale) by Vorwerg. Their psychometric properties have not been tested on professional musicians in Slovakia.

Methods

1. Research organization

The expansion of the humanitarian domain of education has brought the concept of positive motivation to schools. Teachers are now being encouraged to praise children on various different occasions, to enhance their interest in the learning process, to create equal opportunities for each child to succeed. Hope of success presents one phenomenon on the mono-dimensional scale (the opposing quality of which is the

fear of failure). We have aimed to explore achievement motivation in students and its relation to their musical performance and their practicing habits. We decided to conduct our research at a university which prepares musicians – performers for their professional career.

Example

We have applied random sampling to choose the example of 86 students from the Academy of Arts in Banská Bystrica. The sample consisted of 41 young men and 46 young women aged between 18 and 25. During the 2018/2019 academic year we distributed among selected students the Vorwerg achievement motivation scale in order to diagnose their achievement motivation. Afterwards, we compared the data with the students' grades from their major course of studies – performance on their respective musical instruments. We have also conducted a number of interviews with the students in order to obtain information about the characteristics of their practice routine, such as the duration of the daily practice, the time for practicing, as well as their motivation for practicing.

The aims and research questions

The aim of our study has been to examine the relation between achievement motivation, resp. its focus and dimension, the students' performances (presented by the students' grades from their major course of studies) and the time spent practicing playing on their instruments.

We have formulated two research questions:

Q1: Are motivation and its dimension related to the students' final grades received for playing their instruments?

Q2: Are motivation and its dimension related to the duration of time spent by practicing their instruments?

2. Methods used

In order to gather the data about the students' motivation, we have used the Achievement motivations scale devised by Vorwerg [2, pp. 178–179], which consists of 17 items-statements. The respondent's task was to assign to each of them one of the 7 point-scale alternatives from “completely resembling” to “not in the least similar to me.” The items have been divided into three groups.

1. The indicators of hope for success determine the extent to which the respondent perceives his or her *hope for success*; such as “I believe I can do something,” “I believe I can improve my skills,” and so on. Some items express the orientation on the goal for mastery focusing on the abilities and development of skills as one of the goals for achievement (Elliot & Church motivation), others discuss the students' active efforts (Schultheiss & Brunstein's mode of effort). The group of indicators of hope for success also includes items examining the difficulty of the selected and preferred tasks.
2. The indicators of *fear of failure* are aimed at detecting fear of failure, as opposed to the positive type of goal-oriented motivation. The items in this group express the expectations of negative outcomes and failures associated with the unwillingness to risk, a distrust in one's own abilities, the reliance on others' help and low self-esteem. In this group it is frequently possible to encounter statements such as: “I prefer to avoid difficult situations,” “I feel I know less than others,” or “I have fears of possible obstacles ahead of me.”
3. Items that are not used as indicators when calculating the raw score.

We have calculated the empirical value of motivation raw score as a difference of the middle values of hope for success and fear of failure. If the activities of students are motivated mostly by their aspiration to achieve success, the difference of the average values of hope for success and fear of failure is at least 2. If the main motivation is to avoid failure, the calculated raw score value is less than 2.

In order to disclose the relation between the motivation and its dimension, on the one hand, and amount of practicing hours and the students' grades, we have conducted interviews with the students. We have focused on the number of practicing hours and the evaluations of the students' work – the grades the students received in their major course of studies in the summer semester of 2019. The interviews were semi-structured. They contained questions which describes two major issues: “Could you describe your practice routine?” (How many hours a day do you practice? What time is your favorite time to practice? Do you have any special preferences while practicing?) and “What was your grade from the major course of studies during the summer semester?” (Do you consider your evaluation fair? Why or why not?) We have conducted an interview with one music student in a relaxed atmosphere and, based on his responses, we have decided to keep the question formulation. The interviews lasted 10-15 minutes and were conducted individually in a classroom environment. At the end of each interview we asked the respondent if he or she wished to add any information or to ask anything.

We analyzed all quantitative data with SPSS software and the qualitative data with Atlas.ti8. In order to obtain targeted information for this study, there was no need to code the interview transcriptions, since the respondents' answers were clear

and concise, and we were able to record them in the Excel spreadsheet.

Results & Discussion

Based on the students' responses to the motivation scale, we came to the conclusion that the effort to achieve success predominated in 51,2% of the music students, and the desire to avoid failure prevailed in 48,8% of them. This difference is negligible, and it can be stated that the amount of students with the predominating effort to achieve success, as well as those with the prevailing effort to avoid failure is comparable in our survey of the music students.

The recorded average motivational raw score was 1.96, which points on a slight shift towards the desire to avoid failure. The distribution of the raw score is graphically shown in Figure 1.

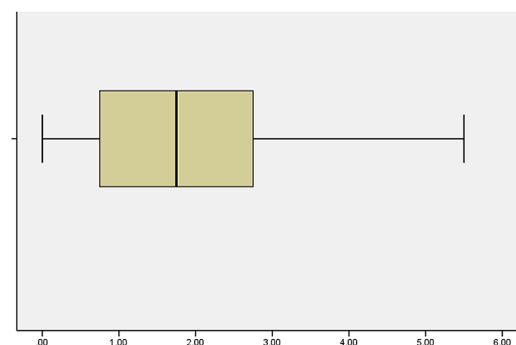


Figure 1: Distribution of raw scores on the Achievement motivation scale; Source: personal

This score is not normally distributed (in the Kolmogorov-Smirnov test, $stat = 0,134$ and $Sig = 0,001$). The main characteristics of the data are in the Table 1.

Next, we tried to answer our first research question.

Q1: Are motivation and its dimension related to the students' final grades for playing their instruments?

The identified grades were A, B, C, D and we transformed them to numbers 1,2,3,4 (where 1 corresponds to the best evaluation).

Table 1: Descriptions of the raw scores in the Achievement motivation scale; Source: personal

<i>Descriptions of the raw scores in the Achievement motivation scale</i>	<i>Statistics</i>	<i>Standard Error</i>
Mean	1,96	0,14
Median	1,75	
Variance	1,81	
Standard deviation	1,34	
Minimum	0,00	
Maximum	5,50	
Range	5,50	
Interquartile range	2,00	
Skewness	0,54	0,26
Kurtosis	-0,43	0,51

Their distribution was not normal. (Sig<0,001 in both the Kolmogorov-Smirnov and the Shapiro-Wilk test).

In our sample the relation between the motivation and the grades (A, B, C, D) is confirmed. The Spearman rho coefficient is: $r(86)=-0,240$, which is significant at the 0,05 level (2-tailed). Graphically the relation between the raw scores and the grades is shown in Figure 2.

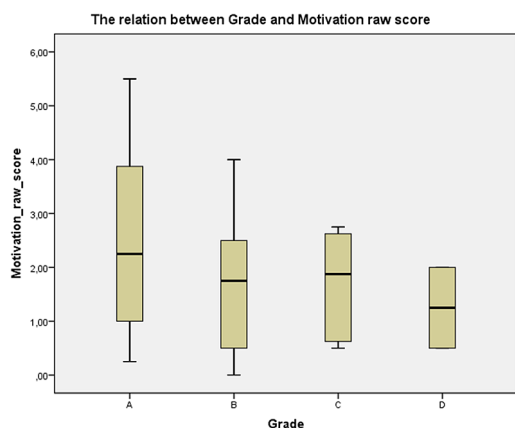


Figure 2: The relation between the grade and the motivation raw score; Source: personal

Furthermore, we tried to pinpoint the relation between the dimension of the motivation and the grades. Figure 3 illustrates this relationship.

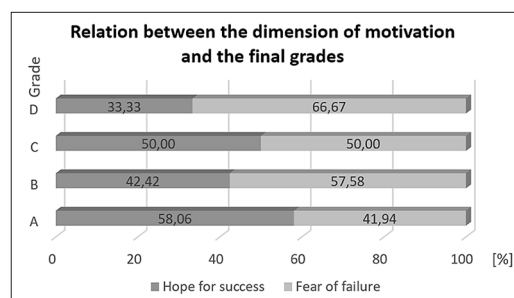


Figure 3: The relation between the dimension of motivation and the final grade; Source: personal

The ratios representing the dimension of motivation suggest that the better the student's grade is, the more the positive motivation oriented on success is represented. We found that hope for success dominated in 58,1% of students with a grade A, in 42,4% of students with grade B, 50% for C, and 33,3% for D (it should be emphasized that only 2 students were graded D, which can greatly distort the results due to the low frequency). The association between the motivation dimension and the grade was not statistically confirmed.

Afterwards, we focused on the second research question.

Q2: Is motivation and its dimension related to the length of time spend by practicing the instrument?

To answer the second research question we investigated whether achievement motivation and its dimensions affect the average practicing time and the preparation for class.

Spearman's correlation coefficient suggests some relation between motivation and the hours of practicing $r(86) = 0,356$, which is significant at 0,01 level (2-tailed). This moderate level of relation suggests that the higher the positive achievement motivation (indicating the hope for success), the more time the student spends practicing his or her instrument (Figure 4).



Figure 4: The relation between achievement motivation and the length of daily practice [hours/day]; Source: personal

Next, we tried to illustrate the relation between the dimension of motivation and the time dedicated to practicing playing on one's instrument (Figure 5).

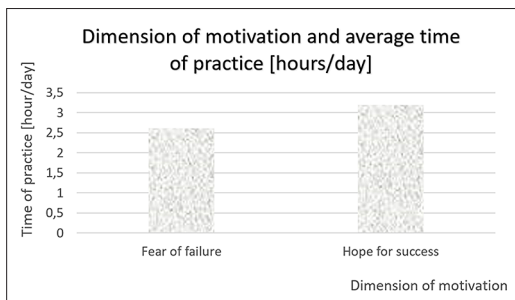


Figure 5: The relation between the dimension of motivation and time for practice; source: personal

From the graph we may presume that the students who practice longer hours (an average of 3,24 hours a day) are positively motivated, and that the hope for success predominates in their motivation structure. On the other hand, if a student's chief motivation is to avoid failure, his or her practicing hours are shorter (an average of 2,61 hours a day). However, this relation is not documented by statistical methods ($\eta=0,248$), since there is no significant association between the dimension of motivation and the hours for practice. The detailed characteristics of the practicing hours in both groups of students are described in the Table 2.

From the interviews taken following the completion of the scale, in addition to the

Table 2: The detailed characteristics of practicing hours in two groups of students; Source: personal

<i>Number of practicing hours – dominating motivation: hope for success</i>		<i>Number of practicing hours - dominating motivation: fear of failure</i>	
Mean	3,24	Mean	2,61
Standard Error	0,19	Standard Error	0,18
Median	3	Median	2,5
Mode	3	Mode	2,5
Standard Deviation	1,25	Standard Deviation	1,22
Sample Variance	1,56	Sample Variance	1,49
Kurtosis	-0,88	Kurtosis	0,14
Skewness	0,08	Skewness	0,67
Range	4	Range	4,5
Minimum	1	Minimum	1
Maximum	5	Maximum	5,5
Count	42	Count	44

dimension of motivational disposition – the attempt to achieve success or to avoid failure, – we have also identified other aspects of motivation: expected types of competence and performance behavior (Elliot, Church, 1997). The expected types of competence (performance objectives) have been manifested in three basic directions:

- effort in performance – the artists make an effort to perform better than the others (56,98%),
- directedness on the musicians' abilities – the performers demonstrate their effort to improve their own abilities and performance, regardless of the opinions of others and external support (30,23%),
- avoidance of performance – some performers are characterized by their efforts to avoid performance projected by them as being worse than that of others (only 12,78%).

The second aspect of achievement motivation provided by the resulting performance behavior has not been investigated any further.



Limitations for the study and suggestions

The Vorwerg scale used by us to examine the motivation in our respondents has not been standardized among the population of Slovakia. In order to receive a more complex view of motivation and its effects on music students' performance and practicing, it would be beneficial for us to use standardized methods of assessing motivation and rely not only on a personally reported scale, but also on other tools which are more objective. In addition, this research would benefit to a greater degree from deeper statistical analysis, such as discovering the relation between the intensity of motivation and the student's grades, as well as and the length and quality of their practicing routine.

We have focused on only a very limited aspect of motivational structure in the work of music students. In future research endeavors on musicians' motivation, it would be advisable to enlarge the research work, so that it would include four achievement-related goals: approaching mastery, avoidance of mastery, approaching performance and avoidance of performance. Moreover, various additional determinants, such as cultural milieu, achievement-related choices, interpretation of experience and others, as described by Eccles & Wigfield in their expectancy-value model of achievement motivation (Wigfield, Eccles, 2000) must be included in the investigation. This would bring a broader view of musicians' motivation. More complex views on the motivation structure in the work of musicians should also consider other specific aspects, such as aspirations, interests, particular needs etc. Furthermore, we also propose to take personality traits and personality focus in consideration when examining the

influence of specific determinants related to motivation on music students' performance and practicing habits.

Conclusion

During our exploration of the relationship between practicing, performance and achievement motivation of tertiary education music students, we have discovered that motivation and the students' final grades for playing their instruments demonstrate statistically significant relations, but the dimension of motivation does not show anything of the kind. Similarly, motivation is associated with the average duration of daily practice of instrumental playing, but the dimension of motivation is not. Our discoveries have given rise to a great deal more questions, such as: What motivational factors are the most important determinants of the success of a music student? Which factors and motives are the key determinants which influence the preparation and the final performance of a student?

Many research discoveries (not only ours) have led to conclusions that motivation is a phenomenon that contributes to a greater extent both to the efficiency and to the increase of quality in the artistic training of performing musicians, as well as to improvement of their performance. Therefore, we consider it necessary to pay more attention to the achievement motivation and its aspects in music education. We see a considerable amount of potential in the purposeful and deliberate support of the "right" motivation in the education of future performers. In addition, we believe that knowledge about this phenomenon can also help performers to build their self-knowledge and subsequent self-development and to achieve the best possible performance in their own artistic careers.

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About the authors:

Maria Strenacikova Jr., PhD. (Pedagogy and Psychology), Lecturer of Faculty of Music Arts, Academy of Arts in Banská Bystrica (97401, Banská Bystrica, Slovakia), **ORCID: 0000-0001-5555-0091**, m.strenacikova1@aku.sk

Maria Strenacikova Sr., Dr.Sci. (Arts), Associate Professor of the Faculty of Performing Arts, Academy of Arts in Banská Bystrica (97401, Banská Bystrica, Slovakia), **ORCID: 0000-0002-7087-9730**, strenacikova@aku.sk

Об авторах:

Стреначикова Мария м.л., PhD., преподаватель Факультета исполнительских искусств, Банскобыстрицкая академия искусств (97401, г. Банска Быстрица, Словакия), **ORCID: 0000-0001-5555-0091**, m.strenacikova1@aku.sk

Стреначикова Мария ст., доктор искусствоведения, доцент Факультета исполнительских искусств, Банскобыстрицкая академия искусств (97401, г. Банска Быстрица, Словакия), **ORCID: 0000-0002-7087-9730**, strenacikova@aku.sk

