

The Influence of Piano Students' Sociodemographic Characteristics, Motivation, and Self-Efficacy on Their Achievements and Aspirations for Continuing Music Education

Ivana Franceschi*

ivanafaros@gmail.com

<https://orcid.org/0000-0001-7281-2583>

<https://doi.org/10.31192/np.20.3.8>

UDK / UDC: 159.947-057.874

37.018.54:78

303.423(497.5)

Izvorni znanstveni rad / Original scientific paper

Primljeno / Received: 4. ožujka 2022. / March 4, 2022

Prihvaćeno / Accepted: / 15. lipnja 2022. / Jun 15, 2022

Motivation, self-efficacy and certain personality traits are important factors for the success of piano students, and they also influence student aspirations for further music education. In addition to these factors, the paper studies certain sociodemographic characteristics, as predictors of the continuation of music education. The aim of the research was to examine the aspirations and predictors of piano pupils to pursue music education. The research was conducted in the following schools: »Josip Hatze« Music School in Split, »Ivan Matetić Ronjgov« Music School in Rijeka, and the three largest music schools in Zagreb, »Pavao Markovac« Music School, »Vatroslav Lisinski« Music School, and »Elly Bašić« Music School. The respondents were 215 piano students aged 12–18. The closed-ended research questionnaires included five subscales adapted for the purposes of this research, along with a new scale of piano practice efficacy, which represents a contribution to piano pedagogy. This paper explains many motivational factors, self-effective practice, and certain sociodemographic characteristics that affect students' performance and aspirations, while participation in school competitions and international awards were found to be the most important factors for enrolling at music academies. Finally, in terms of explaining success and aspirations for further education, we can also highlight the importance of educational structure, parental support, and primary school performance.

Key words: *aspirations, motivation, musical achievements, piano students, self-efficacy in practice.*

* Ivana Franceschi, PhD, Senior Lecturer, University of Split, Academy of Arts; Address: Zagrebačka 1, HR-21000 Split, Croatia.

Introduction¹

The beginning of the 21st century saw many changes in society on a global scale, as well as in education and culture. Music education is also changing, and in the Republic of Croatia the music education system has its own legal framework². In the absence of a certain number of systematic studies, it is not easy to launch more systematic reforms of music education. A large number of students who start to take music lessons during their primary education drop out of music schools for a number of reasons. What motivates today's students? How to awaken student aspirations and keep students in music schools?

Music education in Croatia is an independent system, entirely financed by the state, including about 60 primary and 32 secondary music schools and 4 music academies in Zagreb, Osijek, Split and Pula. According to the available data, about 5,000 children and young people take piano lessons, while at the end of high school music education, only about 30 of them enroll in piano study programs at one of the four music academies.

»About 1,200 children enroll in the first grade of primary music school, about 600 finish primary school, while about 90 students enroll in the first grade of music high school and 70 of them finish the fourth grade. Only 2% of those attending first grade of primary music school enroll in the first year of study«³.

Many European countries and especially the United States recognize the importance of psychology in music education, which in our instrumental pedagogy is too little known. Applying certain insights into the psychological nature of playing skills, such as personality traits, motivation, self-regulation in learning and practicing, could be of great help in pedagogical practice.

»Complex piano teaching requires a good teacher to be not only a pianist, but also a pedagogue, psychologist, theorist, musicologist, even a composer and a manager. A pianist, because a pianist knows her/his instrument, a piano pedagogue because they know how to adapt the playing technique, relevant literature, and interpretation skills to the student, a psychologist because they can assess the student's abilities, motivate her/him and prepare her/him for possible performance difficulties, a theorist because a theorist should teach how to properly read music, a musicologist because they approach music from a historical and sociological aspect«⁴.

¹ Into English translated by Ivana Čagalj.

² Zakon o umjetničkom obrazovanju Republike Hrvatske [Art Education Act of the Republic of Croatia] (2011), <https://www.zakon.hr/z/516/Zakon-o-umjetni%C4%8Dkom-obrazovanju> (19.02.2022).

³ Cf. Jakša ZLATAR, *Važnost sviranja klavira u suvremenom društvu* [The Importance of Playing the Piano in Modern Society], *Tonovi* [Tones], 63 (2014) 1, 127-130, 129.

⁴ Cf. Jakša ZLATAR, *Odabrana poglavlja iz metodike nastave klavira* [Selected Chapters from Piano Teaching Methodology], Zagreb, Muzička akademija, 2015, 215.

There are different motivators for developing intrinsic motivation: interesting repertoire, teacher enthusiasm, the feeling of being given an opportunity to participate, progress, previous success and stimulating goals. Extrinsic motivation includes external activators such as awards (praises, grades, diplomas, gifts), performances, and competitions. The dedication, enthusiasm and motivation of teachers are of great importance.

»Teachers have to show passion and love for music. If they are not present in teachers, neither will be in students, and in this case, pedagogues cannot expect great and growing motivation for music education. If teachers express their commitment to music, their motivation will be passed on to students«⁵.

The importance of motivation in the process of becoming an expert musician is discussed by many authors in the field of music education and achievement⁶. Motivated piano student is interested, curious, active, enthusiastic, persistent and does not give up when encountering difficulties. The student with internal motivation can concentrate on a music task over a long period, enjoys working independently, expresses satisfaction and has intensive focus on playing or public performance. Asmus applied attribution theory in researching the motivation of music students and found that 80% of students aged 9-17 attribute success to internal stable causes, i.e. personal abilities and task difficulty⁷. He also found certain age differences according to which younger students, compared to older ones, emphasize effort as the main reason for success. During adolescent's period

»the belief that along with talent the effort invested will yield results is lost, making many students feel a crisis and demotivation. It is here that teachers take on the key role of motivating students to continue to engage in music. After puberty, students identify themselves more with the chosen field of knowledge and competence, at the same time rejecting others. Learning focused on a narrow, selected area leads to higher achievement«⁸.

»Student interests, especially their stability over time, are of particular importance to the individual, as they are a prerequisite for her/his decision to continue education, and ultimately for choosing a future profession«⁹.

⁵ Cf. Branka ROTAR-PANCE, *Motivacija - ključ ka glazbi [Motivation - the Key to Music]*, Nova Gorica, Educa, 2006, 36.

⁶ Cf. Anders K. ERICSSON, Ralf Th. KRAMPE, Clemens TESCH-ROMER, The role of deliberate practice in the acquisition of expert performance, *Psychological review*, 100 (1993) 3, 363-406, 369.

⁷ Cf. Edward P. ASMUS, Students beliefs about the causes of success and failure in music: A Study of Achievement Motivation, *Journal of Research in Music Education*, 34 (1986) 4, 262-278.

⁸ Cf. Ann K. RENNINGER, *Individual interest and its implications for understanding intrinsic motivation*, San Diego, Academic Press, 2000, 273-404.

⁹ Cf. Jeffrey H. GREENHAUS, *Career Dynamics*, Handbook of psychology, Industrial and Organizational Psychology, New Jersey, John Wiley and Sons, 1998, 519-540, 527.

Learning music requires dedication and daily practice. Ericsson, Krampe and Tesch-Romer¹⁰ emphasize an important aspect of practicing, i.e. »deliberate« practice that is goal-oriented, structured, and requiring a lot of effort. Albert Bandura studied the role of self-efficacy in education, and this concept can also be applied in music education. When a student begins a task, self-efficacy assessments can be adjusted depending on current performance and feedback, as well as the individual's attempt to actively regulate or alter their efficacy assessments¹¹. Intrinsic satisfaction starts from stimulating the student's self-confidence and self-control. The musical success of pupils and students is influenced by numerous sociological and demographic factors such as family socioeconomic status and social environment. In music education, the influence of parents belongs to external factors of motivation.

»Parental expectations and aspirations affect the child's level of self-esteem, motivation, and their desire for achievement. Recent research suggests that parents have a greater impact on the child's perception of competence than teachers«¹².

Factors that make up the socioeconomic status are family income, the number of children in the family, and parents' level of education.

»Families from lower social strata view education as a means to achieve short-term goals (the child's employment as soon as possible). The higher the socioeconomic strata, the higher the value of knowledge. Research has shown that family economic position also influences the choice of the study program. Under the influence of the daily struggle for existence, children from less well-off families most often opt for technical and natural sciences, and less for humanities and social sciences or for the study programs in music, fine arts and other forms of art«¹³.

Since motivation and self-efficacy are closely related, the theory of self-efficacy by Albert Bandura is included in the paper. Special attention was paid to public performances and school piano competitions as parts of external motivation, exploring their impact on students' aspirations for further education.

¹⁰ Cf. Ericsson, Krampe, Tesch-Romer, *The Role of deliberate practice...*, 369.

¹¹ Cf. Albert BANDURA, Self-efficacy: toward a Unifying Theory of Behavioral Change, *Psychological review*, 84 (1997) 2, 191-215.

¹² Cf. Gary Mc PHERSON, *The role of parents in children's musical development*, *Psychology of Music*, 37 (2009) 1, 91-100, 95.

¹³ Cf. Rotar-Pance, *Motivacija – ključ ka glazbi...*, 61.

1. Method

The aim of the research was to examine the predictors of piano student success (motivation, self-efficacy and personality traits), as well as their socio-demographic characteristic and aspirations for continuing education. The research data were collected as a part of doctoral thesis, on a sample including N=215 piano students attending the following music schools: »Josip Hatze« Music School in Split, »Ivan Matetić Ronjgov« Music School in Rijeka, and the three largest music schools in Zagreb, »Pavao Markovac« Music School, »Vatroslav Lisinski« Music School, and »Elly Bašić« Music School. The examination was conducted in accordance with the code of ethics of research with children: before the examination a written request was sent, which was accepted by the principals and teachers at school sessions. Pupils filled in questionnaires anonymously for 20 minutes during piano lessons. The teachers distributed questionnaires and explained the purpose and manner of compilation. The sample consisted of 34% of male students and 66% of female students. The structure of the sample with respect to the grade the students attend is shown in Table 1.

Table 1. The sample structure with respect to music school grade

	N
Fifth grade	67
Sixth grade	64
First grade of high school	26
Second grade of high school	24
Third grade of high school	21
Fourth grade of high school	13

Figure 1 shows the structure of participants' performance in general education school in the past school year (2016/2017) along with the expected general education school performance in the current school year. The assumption that very good and excellent students can master music school programs without difficulty is confirmed in Figure 2.

The educational structure of parents of music school students is shown in Table 2. Most of parents have a high or higher level of education with almost 9% of both mothers and fathers holding an academic degree.

Figure 2 shows student performance in music school and piano success they achieved in the previous school year (2016/2017).

With regard to participation in competitions, the results show that 70.23% of students have never participated in state (or regional) piano competitions, 13.95% or N=30 participated once or twice, while 15.81% of students (N=34) participated more times.

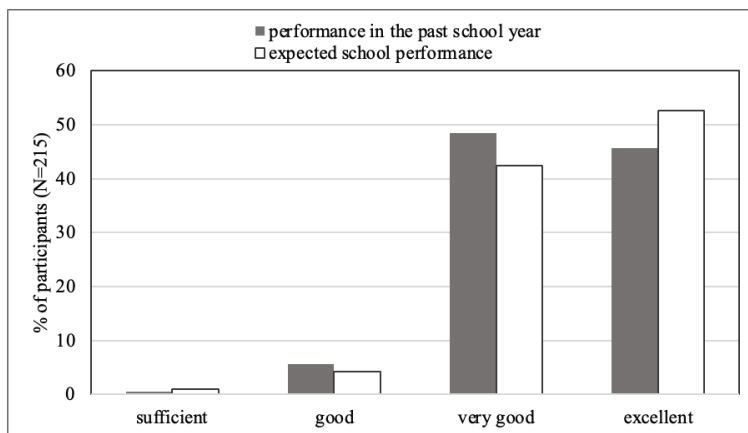


Figure 1. The performance of the participants from a subsample of students in general education school

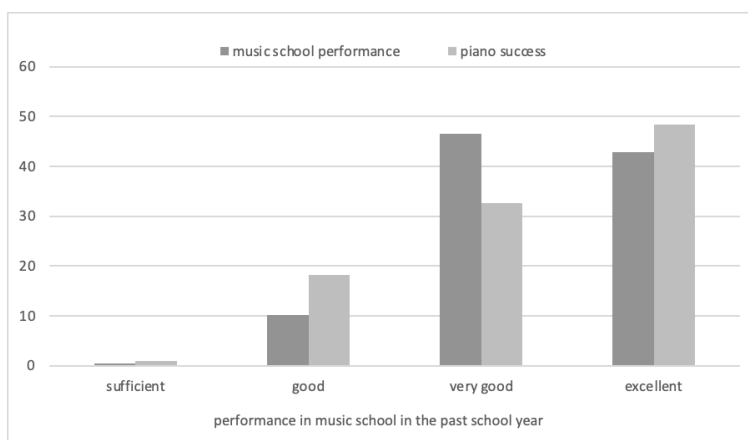


Figure 2. Student performance in music school in the past school year

Table 2. The structure of the subsample of students with respect to their parents' level of education

	mother	father
primary school	0.93%	1.40%
high school	27.91%	30.23%
higher education or faculty	62.33%	59.54%
academic degree (master's/doctorate)	8.84%	8.83%

As for the plans for further music education, i.e. enrollment at music academy, it was found that almost half of the students do not plan to enroll at music academy ($N=98$ or 45.58%), 79 or 36.74% said there was a possibility, while only 17.67% or 38 students certainly plan to enroll at music academy.

2. Instruments

2.1. The General Data Questionnaire for Music School Students

The questionnaire consisted of 20 closed-ended questions, aiming to obtain the following data: gender, age, grade, general education school performance in the previous school year, expected performance in general education in the current school year, attending music high school, place of residence, attending music school in the place of residence, traveling to music school, level of parents' education, having a musician in the family, family financial state, music school performance in the past school year, piano success in the past school year, participation in state or regional piano competitions, prizes in piano competitions, participation in international piano competitions, public performances and plans to enroll at music academy after finishing high school.

2.2. Short Parental Support Scale

The short scale of parental support was constructed for the purposes of this research. It consisted of four items related to parental support for music activities of their children, i.e. attending music school and playing the piano. The reliability of the scale was Cronbach alpha=.64, the average result $M=15.17$, $sd=1.33$, the range from 9 to 16, and the average correlation between items $r=.33$. With regard to the content of the items and satisfactory reliability, one overall result was formed as a linear combination of assessment on all four items where a higher value indicated a higher level of parental support.

2.3. The Self-Efficacy in Playing and Practicing Questionnaire

The questionnaire on self-efficacy in playing and practicing was designed for the purposes of this research, consisting of 15 items. The items related to self-efficacy in various aspects of piano practicing and playing¹⁴. The questionnaire was designed on the basis of Bandura's concept of self-efficacy, which is one of the theoretical starting points of this research. One factor explains 34% of the variance. A higher overall score indicates a higher self-efficacy of the participants. The reliability of the questionnaire was Cronbach alpha=.82, with an average score of $M=52.62$, $sd=7.20$, a range of scores from 26 to 67, and an average correlation between items $r=.28$.

¹⁴ Cf. Albert BANDURA, *Guide for constructing self-efficacy scales: Self-efficacy beliefs of adolescents*, Greenwich, Information Aye Publishing, 2006, 307-337.

2.4. Adapted Version of the Academic Motivation Scale

The Academic Motivation Scale¹⁵ is based on the theory of self-determination¹⁶ and is originally intended to examine motivation in the school/academic context. The scale consists of 28 items covering different reasons why students have chosen the music school with a focus on piano program. The original scale has seven motivational factors, with four items relating to each of the factors, including amotivation and three types of intrinsic motivation (knowledge, experience, and progress), along with three types of extrinsic motivation (identified, introjected and external regulation). Cronbach's alpha for intrinsic motivation was 0.91, the mean score $M=62.03$, $sd=11.79$, the range of scores 15 to 84 with the mean correlation between items $r=.45$. A higher score indicates higher intrinsic motivation.

3. Results

To explore whether students attending different grades differ in self-efficacy while practicing, several Kruskal-Wallis analyses of variance were calculated, the results of which are shown in Table 3.

Table 3. Age differences in self-efficacy, motivation, and parental support – the results of Kruskal-Wallis analyses of variance

Variables	H (5, N=215)	p	C ₅	C ₆	C ₁	C ₂	C ₃	C ₄
parental support	8.144	.149	4.00	4.00	4.00	4.00	3.75	3.75
amotivation	6.504	.260	2.00	1.75	1.75	2.00	1.50	1.75
intrinsic – total	12.85	.025	5.17	5.08	5.42	5.42	5.75	5.42
extrinsic – total	12.56	.028	4.33	4.71	5.13	4.88	4.58	4.42
self-efficacy	3.763	.584	3.78	3.82	3.96	3.90	3.86	3.93

C₅ – median results of 5th-grade students; C₆ – median results of 6th-grade students; C₁ – median results of 1st-grade music high school students; C₂ – median results of 2nd-grade music high school students; C₃ – median results of 3rd-grade music high school students; C₄ – median results of 4th-grade music high school students.

Table 3 shows that students attending different grades differ in terms of motivation, while no significant differences were found in other variables. It was found that high school students were generally more intrinsically motivated than younger students.

¹⁵ Cf. Robert J. VALLERAND et al., The academic motivation scale: A measure of intrinsic, extrinsic and amotivation in education, *Educational and Psychological Measurement*, 52 (1992) 4, 1003-1008, 1005.

¹⁶ Cf. Richard M. RYAN, Edward L. DECI, Self-determination theory and the facilitation of intrinsic motivation, social development and well-being, *American psychologist*, 55 (2000) 1, 68-78.

Table 4. The matrix of correlations of the research variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. gender	1.00											
2. age	-.07	1.00										
3. general education school performance	.07	-.12	1.00									
4. music school performance	.02	.12	.39*	1.00								
5. piano success	.01	.16*	.27*	.58*	1.00							
6. state competitions	-.05	.27*	.14*	.21*	.41*	1.00						
7. international competitions	-.02	.19*	.20*	.23*	.40*	.74*	1.00					
8. public performances	.07	.11	.24*	.28*	.39*	.42*	.46*	1.00				
9. self-efficacy	-.02	.08	.16*	.38*	.29*	.25*	.27*	.41*	1.00			
10. intrinsic motivation	.04	.23*	.11	.30*	.28*	.32*	.37*	.36*	.52*	1.00		
11. extrinsic motivation	-.02	.19*	-.09	.10	.07	.24*	.26*	.32*	.48*	.68*	1.00	
12. parental support	-.03	-.08	.08	.29*	.22*	.09	.13	.27*	.49*	.27*	.22*	1.00

* $p < .05$

Table 4 shows the matrix of correlations of the research variables. As we can see, student gender is not associated with any variable, therefore it is possible to conclude that student performance as well as self-efficacy and motivation do not depend on student gender.

Self-efficacy is a positively correlated with performance and motivation, while parental support is associated with music school performance, public performances, motivation, and self-efficacy.

To examine the contribution of certain sociodemographic characteristics of students to their self-efficacy and motivation, several regression analyses were performed, the results of which are shown in Table 5. Since the skewness values for all criterion variables ranged from -2 to +2, and for most ranged from -1 to +1 (skewness-.87, -.56, -.94, -.67, 1.41, .5 for intrinsic motivation, extrinsic motivation, self-efficacy, piano grade, competitions and aspirations, respectively), as well as values of kurtosis (1.53, -.39, 1.21, -.73, .49, -1.5 for intrinsic motivation, extrinsic motivation, self-efficacy, piano grade, competitions and aspirations, respectively), parametric procedures were applied¹⁷. Since it ranged from 0.37

¹⁷ Cf. Frederick GRAVETTER, Larry WALLNAU, *Essentials of statistics for Behavioral sciences*, Wadsworth, Belmont, CA, 2014, 210.

to 0.97 for predictors used in hierarchical regressions (Table 6), and from .75 to .98 for predictors used in standard regressions (Table 5), it was acceptable to perform regression analyzes.

Table 5. The results of regression analyses with motivation and self-efficacy variables as criteria

Predictors	intrinsic motivation	extrinsic motivation	self-efficacy
Gender	-.07	.03	.01
Age	.27 *	.21 *	.14*
mother's level of education	.09	.09	.14*
father's level of education	.07	-.01	.09
family financial status	.06	-.13	.02
having a musician in the family	-.04	.09	-.02
place of residence	-.03	-.05	-.01
parental support	.31 *	.20 *	.50 *
R (R ²)	.41 (.17)	.34 (.12)	.54 (.29)
F (df)	5.07 * (8,205)	3.46 * (8,206)	10.32 * (8,206)

* $p < .05$

Standard regression analyses, the results of which are presented in Table 5, showed that age and parental support are the most important predictors of intrinsic motivation, extrinsic motivation, and self-efficacy.

To examine the independent contribution of sociodemographic characteristics, motivation, and self-efficacy to the explanation of differences in student achievement, three hierarchical regression analyses were performed, the results of which are shown in Table 6.

All variables together explain 21% of the variance criteria, and along with participants' sociodemographic characteristics, motivation, and self-efficacy they significantly contribute to the explanation of interindividual differences in piano success. In the last step of the analysis, the introduction of self-efficacy did not significantly increase part of the explained variance criteria, making it possible to conclude that the relevant variables for student achievement are their age, father's level of education and intrinsic motivation.

Table 6. The results of hierarchical regression analyses with achievement variables as criteria

Predictors	piano success	competitions**	aspirations for enrollment at the academy
step 1 - sociodemographic characteristics			
Gender	.02	-.02	-.02
Age	.17 *	.28 *	.31 *
mother's level of education	-.05	-.04	-.02
father's level of education	.10	.21 *	.13
family financial status	-.05	-.02	.04
having a musician in the family	-.16 *	-.04	-.07
place of residence	-.01	-.04	-.07
parental support	.26 *	.17 *	.23 *
R (R ²)	.34 (.12)	.38 (.14)	.41 (.17)
F (df)	3.36 * (8,205)	4.22 * (8,204)	5.29 * (8,205)
step 2 - motivation			
Gender	.01	-.04	-.04
Age	.12	.20 *	.21 *
mother's level of education	-.06	-.07	-.06
father's level of education	.07	.19 *	.11
family financial status	-.09	-.04	.04
having a musician in the family	-.12	-.02	-.07
place of residence	-.02	-.03	-.10
parental support	.22 *	.08	.11
Amotivation	.14	.00	.02
intrinsic motivation	.43 *	.29 *	.28 *
extrinsic motivation	-.25 *	-.01	.14
R (R ²)	.43 (.19)	.46 (.21)	.55 (.30)
ΔR ²	.07 *	.07 *	.13 *
F (df)	4.24 * (11,202)	4.86 * (11,201)	7.81 * (11,202)
step 3 - self-efficacy			
Gender	.01	-.04	-.04
Age	.11	.20 *	.20 *
mother's level of education	-.08	-.08	-.07
father's level of education	.05	.18 *	.10
family financial status	-.10	-.04	.04
having a musician in the family	-.12	-.02	-.06
place of residence	-.02	-.03	-.10
parental support	.13	.03	.07
Amotivation	.11	-.02	.01
intrinsic motivation	.36 *	.26 *	.25 *
extrinsic motivation	-.29 *	-.04	.12
self-efficacy	.22 *	.13	.11
R (R ²)	.46 (.21)	.47 (.22)	.55 (.30)
ΔR	.02 *	.01	.00
F (df)	4.54 * (12,201)	4.67 * (12,200)	7.36 * (12,201)

* p < .05

** competitions - a composite variable created on the basis of participation in local competitions (x), results in local competitions (y) and participation in international competitions (z) according to the formula: x + y + z; possible range: 2-9

Table 7. The differences between students who will certainly not enroll at the academy and students who certainly plan to enroll at the academy

	C _{do not plan}	C _{plan}	U	Z	P
general education school performance	4.00	5.00	1608.00	-1.37	.169
music school performance	4.00	5.00	1205.00	-3.46	.001
piano success	4.00	5.00	745.00	-5.92	.000
Competitions	.67	2.33	539.50	-7.47	.000
public performances	2.00	3.00	559.50	-7.20	.000
parental support	4.00	4.00	1419.00	-2.43	.015
Intellect	3.70	4.00	1224.50	-3.10	.002
intrinsic motivation	5.00	6.13	532.50	-6.41	.000
extrinsic motivation	3.92	5.13	955.00	-4.40	.000
Amotivation	1.75	1.25	1192.50	3.27	.001
self-efficacy	3.71	4.00	926.00	-4.54	.000

4. Discussion

One of the basic problem tasks of this paper was to determine the factors that influence the motivation of piano students and their aspirations for further education. According to the results, a large percentage of primary music school students do not intend to be professional musicians in the future (only 17% of respondents stated they would certainly enroll at a music academy). Student overload was examined by Ligutić who studied the motivation of students playing various instruments in music schools in Zagreb.¹⁸ The results of this study showed that as many as two-thirds of students were engaged in another additional activity. Lack of motivation may be due to the fact that students do not value music activities enough compared to other school activities, thus they do not invest enough time in practicing. For example, McPherson believe that, despite the huge growth in music consumption, research around the world generally shows that the student population values music less than sports activities, school subjects such as Mathematics, languages or some science-related subjects.¹⁹ It is very important results that Ligutić showed: one-third of students would not continue music education were it not for parental expectations, which implies predominantly extrinsic motivation, while two-thirds of respondents expressed personal motivation to continue playing the instrument.²⁰

¹⁸ Cf. Radojka S. LIGUTIĆ, Činioci motivacije učenika glazbene škole [Factors of Music School Students' Motivation], *Tonovi [Tones]*, 33 (1999) 1, 42-44.

¹⁹ Cf. Gary McPHERSON, Susan O'NEILL, Students motivation to study music as compared to other school subjects: A comparison of eight countries, *Research Studies in Music Education*, 32 (2010) 2, 1-37.

²⁰ Cf. Ligutić, *Činioci motivacije učenika...*, 43.

The vast majority of students have very good or excellent performance in general education school. This was confirmed, also, that success in general education school strongly influences success in music school. The socioeconomic status proved to have a very favorable structure, because most parents have a higher or high education level. As many as 86% of respondents have an average material status. It is closely related to the possibilities of choosing school type, school program and to student profiling²¹. Moreover, musical success is influenced by parents' education, which is confirmed in other studies as well. Both parents, along with the teacher, have an impact on boosting children's self-confidence, motivation, and enjoyment²². This was confirmed in our research too: students who assessed they received greater parental support were more motivated and achieved better results.

It was confirmed that intrinsic motivation increases with age: it is higher in high school piano students than in primary school piano students. In some studies, a significantly higher degree of intrinsic motivation was found in music school students compared to the general population²³. Internal sources of motivation represent needs, interest, and satisfaction. »Piano lessons start from external motives, which are then 'internalized', which can be a long-term process«²⁴. Internal motivation is closely related to self-efficacy, and the results of this paper confirmed it: the higher the student's motivation, the higher self-efficacy.

Concerts and public performances are frequent activities in the music education of every instrumentalist and represent strong motivators. The obtained results regarding competitions and performances confirmed that concerts and public appearances are essential for student success and aspirations. Intrinsic motivation influences practice, and practice-related strategies, i.e. independence in daily piano practice (student self-efficacy) is the greatest predictor of achievement. Similar research on the performance of musicians by Bogunović, confirmed the connection between intrinsic motivation and self-efficacy. In her research on a sample of high school students she found that high school age marks higher level of self-efficacy in practicing as a result of greater internal motivation. Motivation, as measured by student self-efficacy, can be an excel-

²¹ Cf. Margareta GREGUROVIĆ, Simona KUTI, Učinak socioekonomskog statusa na obrazovno postignuće učenika. Primjer PISA istraživanja, *Revija socijalne politike* [The Effect of Socioeconomic Status on Students' Educational Achievement. An Example of PISA Research], *Social Policy Journal*, 17 (2006) 2, 179-196.

²² Cf. Gary McPHERSON, James W. DAVIDSON, *Playing an instrument*, in: G. E. McPHERSON (Ed.), *The child as musician: a handbook of musical development*, Oxford University Press, 2006, 331-351.

²³ Cf. Marko PALEKČIĆ, *Pedagoški smisao i snaga unutrašnje motivacije u školskom učenju* [Pedagogical Meaning and Strength of Internal Motivation in School Learning], *doctoral thesis*, Sarajevo, Filozofski fakultet, 1981, 57.

²⁴ Cf. Zlatar, *Odabrana poglavlja iz metodike...*, 178.

lent predictor of performance achievements²⁵. The results showing that older age is a significant predictor of higher self-efficacy are expected because primary school students have not yet fully mastered strategies for effective practicing at home. According to Schmidt, in adolescence the highest results are achieved by students with intrinsic motivation and with an individualistic motivational orientation²⁶. This was confirmed in the research, which is an important finding for teachers, who can influence student motivation using various teaching strategies and models from the first piano lessons.

Conclusion

While there are numerous studies dedicated to instrumental pedagogy in the world, the field of art education in our country does not have a lot of research in music psychology. Findings and results of this and similar research can present a contribution to piano pedagogy and teaching methodology. In practice, it has been noticed that many piano students leave music education in primary music school, and high school students rarely choose music academy study programs with a focus on piano playing. The results of this study confirmed that musical performance in piano students is a complex outcome determined by a number of personal, motivational, and family factors. Older students and those who assessed they received greater parental support also showed a significantly higher level of motivation and self-efficacy, which confirms that intrinsic motivation increases with age. High self-efficacy affects aspirations for further education. Student age, parents' level of education and parental support have proven to be significant predictors of student participation in competitions and piano success. Out of all included variables, older age and a higher level of father's education are the only significant predictors of participation and awards in competitions. The findings confirm the importance of teacher's encouragement of internal motivation and strengthening of self-efficacy (independent practice) in piano students. The obtained results, insights, and conclusions about the predictors of piano success can give new suggestions and ideas to all participants in the teaching process in order to modernize new curricula for music schools, and include new models in teaching practice. The questionnaire on self-efficacy in practicing and playing, designed according to the self-efficacy guide and constructed for the purposes of this research, presents a contribution to further research on various aspects of piano student practice.

²⁵ Cf. Blanka BOGUNOVIĆ, *Motivacijske karakteristike učenika srednje muzičke škole* [Motivational Characteristics of Music High School Students], *master's thesis*, Beograd, Filozofski fakultet, 1995, 74.

²⁶ Cf. Caroline P. SCHMIDT, Relations among motivation, performance, achievement and music experience variables in secondary instrumental music students, *Journal of Research in Music Education*, 50 (2005) 2, 134-148, 138.

This research can be a good starting point for future research aimed at finding scientifically based models for predicting the musical performance of not only pianists, but also other instrumentalists attending music schools.

Ivana Franceschi*

Utjecaj sociodemografskih obilježja, motivacije i samoefikasnosti učenika klavira na postignuća i aspiracije za nastavak glazbenog obrazovanja

Sažetak

Motivacija, samoefikasnost, uz određene značajke osobina ličnosti, važni su čimbenici glazbene uspješnosti učenika klavira, a također utječu na njihove aspiracije za daljnje glazbeno obrazovanje. Uz ove čimbenike rad proučava i neka sociodemografska obilježja kao prediktore za nastavak glazbenog obrazovanja. Cilj istraživanja je bio ispitati aspiracije i prediktore učenika klavira za nastavak glazbenog obrazovanja. Istraživanje je provedeno na uzorku od 215 učenika klavira u dobi od 12 do 18 godina u glazbenim školama Josipa Hatzea u Splitu, Ivana Matetića Ronjgova u Rijeci te tri najveće glazbene škole u Zagrebu: Pavla Markovca, Vatroslava Lisinskog i Elly Bašić. U upitnicima zatvorenog tipa bilo je pet podskala, adaptiranih za potrebe ovog istraživanja i nova skala učinkovitosti vježbanja klavira, koja je doprinos klavirskoj pedagogiji. Rad objašnjava mnoge motivacijske faktore, samoučinkovito vježbanje, kao i neke sociodemografske karakteristike koje utječu na uspješnost i aspiracije učenika. Otkriveno je da su za nastavak srednje škole važni prediktori česti javni nastupi i blizina škole, dok su za upisivanje na studij glazbenih akademija najvažnija sudjelovanja na školskim natjecanjima. U objašnjavanju uspješnosti i aspiracija za daljnji nastavak školovanja važni su i obrazovna struktura i podrška roditelja te uspjeh u općeobrazovnoj školi.

Ključne riječi: aspiracije učenika klavira, glazbena uspješnost, motivacija, samoefikasnost, učenici klavira.

* Dr. sc. Ivana Franceschi, viši predavač, Sveučilište u Splitu, Umjetnička akademija, Zagrebačka 1, HR-21000 Split, Croatia; e-mail: ivanafaros@gmail.com.