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The Attitude towards School of the Children who Study a Musical Instrument, Compared to the Attitude of the Children who Do not

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Abstract: *Music has positive effects on the physical, emotional and cognitive development of children. Playing a musical instrument activates multiple areas and networks of the brain, facilitating super memory. Music is visibly effective in the therapy of the children with special educational needs. Studying music requires ambition, discipline, dedication, focusing, coordination, time, a lot of practice, competitiveness, communication abilities, conscientiousness, and perseverance. It also leads to increased self-esteem, self-control, self-discipline, inner harmony and creativity. This paper aims to observe the impact of music on children and whether there is a significant relationship between playing a musical instrument and the general attitude of the students towards school. We will argue that playing an instrument significantly enhances the attitude of the students towards school.*

Key-words*: musical instrument, attitude towards school, playing an instrument.*

1. Introduction

Music – what a wonderful gift offered to humankind! (Balteș 2012, 34). Since ancient times, music has been regarded as a fundamental means of perfecting the human soul, of creating a well-balanced, harmonious personality. This noble art accompanied man in all areas of his life (Vasile 2004, 3), influencing his perspective about himself, his aspirations, his decisions and his actions. Music enhances and refines thoughts, affections, and will; it increases cognitive abilities, stimulates imagination and creativity, and has the potential to convey feelings and emotions in a unique way.

2. Music and Humans

2.1. The impact of music on the brain. Both listening to music and, even more, making it, trigger complex cognitive processes in the brain, involving numerous neural networks, connecting the majority of the regions of the brain

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(Collins 2014). Music engages brain structures and neural circuits that no other activity engages (Levitin 2013, 247).

2.2. The impact of music on fetuses. Early auditory stimulation is essential for achieving musical performance. Clements showed that fetuses prefer Mozart's music, while J. Feijoo together with Busnel appreciate that unborn babies should be exposed to pre-classical auditions regularly, for the purpose of cognitive and psychomotor development (Nantais 1999, 370; Iamandescu 2011, 150).

2.3. The impact of music on children with special needs. Under the influence of music, especially of playing a musical instrument, delays in the development of children on the autism spectrum, psychopathologies, or emotional difficulties, can be mitigated, and communication can be greatly improved. Through music, these children can benefit from the enhancement of their memory, their cognitive and communication skills, their language and management of emotions, and their concentration of attention (Boso et al. 2007, 709). The use of motoric-rhythmic components in interventional music therapy contributes to achieving visible improvements in the cognitive acquisitions of children with autism (Jansen and Thaut 2018, 1).

2.4. The impact of music over the human body. Music supports the health of the mind and its optimal functioning. Positive effects have been observed at all age stages of human development, from prematurely born babies to adolescents, young people and adults. Music delays the decline of patients suffering from mental illness, even dementia (Rickard and McFerran 2012, 1). Music has the potential to soothe, calm, or, on the contrary, invigorate and excite. Music accompanies the individual in organizing and synchronizing his work and activities (Sacks 2009, 11). It causes major mental effects: it diminishes negative emotions, reducing depression and anxiety; improves mood associated with recalling previous emotions; it has an energizing effect in various activities, develops memory and can even increase the IQ (Schellenberg 2004, 511-514).

2.5. The influence of music over the development of human personality. The communicative role of music is associated with its expressive, cognitive, but also aesthetic and educational role. Thus, music offers numerous ways of influencing the human being, having positive effects on the entire human being (Iamandescu 2011, 59). Music has also significant benefits in other adjacent, non-musical fields: it stimulates personality development and has a positive impact on children’s attitude towards school, the grades they acquire, their

time management, their ambition, perseverance, patience and memory (Cabanac et al 2013, 256). Together with the development of musicality, the ability to sing also has a beneficial effect on some personality traits in the formation of small children: it can be observed how they become more creative, more spontaneous and more communicative, leaving aside shyness and closedness. The benefits associated with early music education are also visible later in adolescents, in the spheres of creativity, relationships, and cognitive development.

2.6. The influence of the family in the musical training of children. The development of the child, in general, and his artistic evolution, in particular, is influenced by a lot of factors, among which the most important, even essential, are: the genetic heritage, the family environment, the social circle and the education received. However, in terms of performance in the field of music, a defining role is played by the family environment. A strong link has been observed between early stimulation and exposure to music at an early age and later success. The involvement of parents, their presence in the child's instrument lessons, represents an essential element, most of the time a motivating factor for the child (Comeau et al. 2015, 181-194). However, for students who do not benefit from family support, the school can take over this role (Freeman 2000, 98-101). Children who listen to harmonious music in the family or who study a musical instrument will prove more self-control and high self-esteem in various situations of life and a greater openness to knowledge, having a good physical, intellectual, emotional and spiritual balance.

3. The benefits of studying a musical instrument

The study of a musical instrument consists in the participation of the body, the mind, and the emotions. This involves the visual, auditory and motor cortices, a complex act through the participation of both rational thought and affectivity (Coman 2009, 138). Based on my experience as a piano teacher, together with the academic literature review, I was able to identify a plethora of benefits that the study of a musical instrument brings to the development process of children of any age, proving to be truly significant for their balanced development, in all the spheres that define the human being: physical, mental, emotional, social, spiritual, etc. Among these positive effects and skills acquired as a result of musical activity, I underline:

- the development of the power of concentration and distributive attention in order to read the score and to play with both hands; the development of both visual and auditory memory during individual study, but especially at the time of public appearances, by making different, opposite or parallel movements by

the two hands, reading and playing more and more complex score, using the previous training of fine movements of the fingers on the keyboard, strings or keys of wind instruments, with speed and precision, and increasing hand-eye coordination;
- emotional expression, self-expression through art, along with managing emotions by "expressing away" personal feelings;
- getting awareness of the existence of rules in life and the connection between different aspects of life;
- focusing on a well-defined objective, on a target, on a precise and identifiable ideal;
- deepening the relationship between parent and child by supporting him emotionally and financially in his artistic activity;
- integrating the student into a support group and deepening relationships based on communication on common topics with friends in the group;
- increasing the child's self-confidence, based on participation in competitions, shows, festivals and other events, strengthening the sense of personal fulfillment, by experiencing joy in the case of success and developing perseverance in the case of failure.

4. Research methodology

The present paper aims to summarize research carried out during 2017-2018, which sought to identify the impact that the study of a musical instrument has on students' attitude towards school. For this purpose, the same questionnaire was offered both to a group of students who were not studying a musical instrument, but also to a group of students who were engaged in this activity. The research, carried out in the Giurgiu County, discovered significant differences in the case of all analyzed variables, underlining the positive effects of studying a musical instrument on students' attitude towards school.

4.1. Objectives of the study. The aim of the paper was to verify whether studying a musical instrument determines a difference in attitude towards school and its associated elements in the case of students who study an instrument, compared to students who are not involved in this activity. A series of variables were operationalized, such as *academic self-perception*, *motivation and self-regulation*, but also *students' attitude towards school*, *towards teachers or peers*, *towards personal goals and objectives*.

4.2. Type of research. The study used instruments whose results are expressed by numerical data, indicating the *quantity*. It was descriptive research because it

described the actual condition of the chosen population. The study was *correlational*, as it was emphasized that studying a musical instrument represents a significant element of students' attitude towards school. The questionnaire being applied only once, the study was a *transversal* one. Therefore, the research was *quantitative*, *descriptive*, *correlational* and *transversal*.

4.3. The population consisted of 710 students enrolled in four schools: two music schools and two secondary schools within Giurgiu County. The sample included110 students from grades II–VIII: 50 of them were studying a musical instrument (piano, violin, wind instruments), and the other 60 students were not. Most respondents were secondary school students: 5th grade - 24, 6th grade - 28 and 7th grade - 33. The age of the students was between 8 - 15 years, 91 of them were between 11 - 14 years. Of the 110 students, 36 were boys and 74 were girls. The majority of students (89) came from cohabiting families, while 21 students were cared for by a single parent (they had separated/divorced parents or one parent deceased).

To assure the confidentiality of the data, a list of students in the sample was formed, each one being randomly assigned a certain number. Research participation was based on these numbers. The group of students studying a musical instrument consisted of 25 children from the "Victor Karpis" Secondary School of Fine Arts, 20 children from the People's School of Fine Arts and 5 children studying in a private system, in total - 50 students. The group of students who did not study a musical instrument consisted of 35 children enrolled in the Băneasa School and 25 children studying at the Daia School, 60 students in total.

The selection of subjects was done randomly. The samples were of independent type, taking into account differences in age, sex, level of schooling or type of studies completed (those studying a musical instrument, or those not studying). The sample construction models were of an empirical type, based on knowledge of the population structure.

4.4. There were five monitored **variables**: *academic self-perception* - with 7 items, *attitude towards teachers or colleagues* - with 7 items, *importance given to targets* - with 6 items, *motivation and self-regulation* - with 10 items and *general attitude towards school* - with 5 items. The instrument used was the evaluation questionnaire created and validated by McCoach in 2002 (and in the Romanian language in 2011). The evaluation scales were of the Likert type, with increasing values from 1 to 6, from *strongly disagree* to *strongly agree*.

4.5. Data collection was carried out by preparing the research instrument (the questionnaire) and completing it on a single occasion by all selected students. In this way, the variable of the *time of testing* could be controlled. The same

type of questionnaire was distributed to all students, for individual completion, the duration of the process being 20 minutes. The data collected were confidential, and the students' decision to participate in the research was in no way conditioned by constraints or benefits.

4.6. Limits of the study. The research had a number of limitations, such as being carried out within a single county in Romania (Giurgiu County) and the fact that children's attitude towards school is also influenced by a number of other factors besides learning a musical instrument (elements such as personality, interpersonal relationships, the age of the students or the family and social environment they come from). Another limitation of the study was the insufficient research of international studies on the impact of music on human personality. Also, the results of the present research cannot be automatically applied to another population or generalized to other children. However, the study can easily be replicated in another geographic area.

4.7. Defining terms of the research. Music is art, science and language. It represents a projected chain of sounds, the interplay of which constitutes harmony. Music is a very complex sound construction, which transcends melody, rhythm, harmony, intensity, tempo, timbral color or other technical elements, becoming capable of communicating emotional states that express attitudes, ideas and emotions.

Musicality represents one's ability to simultaneously differentiate the frequency (pitch) of sounds, differences in intensity or harmonic combinations (Răducanu 2014, 76). The child gifted with musicality possesses a lively, fluid intelligence, a special imagination, motivation and strong will, particularly important elements in his musical development (Bălan 1995, 7).

Playing a musical instrument represents the full (physical, mental and emotional) participation of the human being in the activity of creating music.

Students' attitude towards school is formed by their social beliefs, which will lead students to think, understand, feel and act towards the proposed educational benchmarks and objectives. Attitude towards school is one of the important factors that contribute to the success of the educational act.

5. **Results**

Following the operationalization of the variables and the use of the statistical method, important results were obtained. The rejection of the null hypothesis and, consequently, the validation of the hypothesis of the study, was highlighted by the average of 5,268 for students who studied a musical instrument, in contrast to the

average of 4,701 for students not involved in this activity (following the application of the t-test for independent samples). We have therefore shown that there is a clear statistical difference between the two groups in terms of attitude towards school. Studying a musical instrument proved to be useful, positive and significant for the students' attitude towards school (provided the activity takes place in the absence of coercion).

Among other significant results of the study, we mention the fact that students involved in making music reported understanding complex processes in school subjects up to 12% more than their peers who were not involved in studying an instrument (this analysis was carried out with the help of the *academic self-perception* variable).

Likewise, up to 64% higher results were also found in the *motivation and self-regulation* variable, where it was observed that the interest in doing homework or making an extra effort in order to achieve very good school results was higher in the case of to children studying a musical instrument.

In the case of the variable *importance given to goals*, 92% of students studying a musical instrument gave the highest score to the statement that getting good grades in school is important to them.

I believe that the results of this research are eloquent and significant. They reinforce the conclusions of the already abundant specialized literature in this field, which proves that music has multiple beneficial effects in children's development, education and training. It provides benefits both in the emotional and cognitive spheres, but also in the aesthetic, moral and spiritual development. I believe that the evidence presented to us by both scientific studies and common experience is more than sufficient to constitute a strong motivation in determining parents to choose musical training for their children, in order to ensure them a balanced, complex and complete development, regardless of the career path they will eventually choose for adult life.

References

Balteș, Felicia Rodica. 2012. *Emoțiile Induse de Muzică* [The Emotions Induced by Music]. Cluj-Napoca: ASCR.

Bălan, Paula. 1995. *Mijlocel și Prichindel. Metodă de Pian pentru cei Mici* [Mijlocel and Prichindel. Piano Method for Little Children]. Iași: Editura Petra Dia.

Boso, Marianna, Enzo Emanuele, Vera Minazzi, Marta Abbamonte and Politi Pierluigi. 2007. "Effect Of Long-Term Interactive Music Therapy On Behavior Profile And Musical Skills In Young Adults With Severe Autism." *The Journal of Alternative and Complementary Medicine* 13(7): 709-712. https://doi.org/10.1089/acm.2006.6334 accessed on 05.08.2010.

Cabanac, Arnaud, Leonid Perlovsky, Marie-Claude Bonniot-Cabanac, Michael Cabanac. 2013. “Music and academic performance.” *Behavioural Brain Research* 256, 257-260. https://doi.org/10.1016/j.bbr.2013.08.023 accessed on 20.09.2020.

Collins, Anita. 2014. *How playing an instrument benefits your brain?* http://www.anitacollinsmusic.com/ted-ed-film accessed on 32.09.2020

Comeau, Gilles, Veronika Huta, and Yi Fei Liu. 2015. “Work ethic, motivation, and parental influences in Chinese and North American children learning to play the piano.” *International Journal of Music Education* 33(2): 181–194. https://doi.org/10.1177/0255761413516062 accessed on 06.08.2020.

Coman, Lavinia. 2007. *Vrei să Fii Profesor de Pian?* [Do You Want to Be a Piano Teacher?] București: Editura Universității de Muzică.

Freeman, Joan. 2000. “Children’s talent in fine art and music-England.” *Roeper Review 22*(2): 98-101. https://doi.org/10.1080/02783190009554010 accessed on 05.08.2010.

Iamandescu, Ioan Bradu, 2011. *Muzicoterapia Receptivă: Premise Psihologice și Neurofiziologice, Aplicaţii Profilactice și Terapeutice* [Receptive Musicology: Psychological and Neurophysiological Premises, Prophylactic and Terapeutical Applications]. Constanța: Editura Fundației *Andrei Șaguna*.

Janzen, Thenille Braun and Michael H. Thaut. 2018. “Rethinking the role of music in the neurodevelopment of autism spectrum disorder.” *Music & Science,* 1. https://doi.org/10.1177/2059204318769639 accessed on 06.08.2020.

Levitin, Daniel J. 2013. *Creierul nostru Muzical: Știința unei Eterne Obsesii* [This is Your Brain on Music: Understanding a Human Obsession]. București: Humanitas.

Nantais, Kristin M. and Glenn E. Schellenberg. 1999. “The Mozart effect: An artifact of preference.” *Psyhological Science* 14(4): 370-373. https://doi.org/10.1111/1467-9280.00170 accessed on 06.08.2010.

Răducanu, Mircea Dan. 2014. *Metodă de Pian* [Piano Method]. București: Grafoart.

Rickard, Nikki Sue and Katrina McFerran (Eds.). 2012. *Lifelong Engagement With Music: Benefits For Mental Health And Well-Being*. Nova Science.

Sacks, Oliver. 2009. *Muzicofilia: Povestiri despre Muzică și Creier* [Musicophilia: Tales of Music and the Brain]. București: Humanitas.

Schellenberg, E. Glenn. 2004. “Music lessons enhance IQ.” *Psychological Science* 15(8) : 511-514. https://doi.org/10.1111/ 0956-7976.2004. 00711.x accessed on 07.08.2010.

Vasile, Vasile. 2004. *Metodica Educației Muzicale* [The Method of Musical Education]. București: Editura Muzicală.