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INTRODUCING EURHYTHMICS METHOD BY EMILE JAQUES-DALCROZE TO PUPILS OF SERBIAN MUSIC SCHOOLS – AN INTERNATIONAL INTERDISCIPLINARY RESEARCH PROJECT

Summary

Since 2012, the cooperation between the Faculty of Choral Conducting, Church music, Artistic education, Eurhythmic and Jazz at the Academy of Music in Gdansk, and the Faculty of Music University of Arts in Belgrade has been started. Intensive activity between our faculties led to the successful application for the Erasmus+ Programme in 2016. In the frame of the programme the exchange of teachers from both institutions was realized. The main aim of our cooperation is to spread Emile Jaques-Dalcroze's Eurhythmic method through the selected Dalcroze's exercises in music schools in Serbia. Systematic cooperation led to the interdisciplinary research named "The impact of Dalcroze's exercises on the stress and anxiety reduction", while at the same time, basic exercises of Dalcroze's Eurhythmic became a starting point for the implementation of the scientific research "The influence of Eurhythmic method (selected tasks and exercises of Dalcroze's method) on motor skills and a sense of pulse". The first pilot study will be conducted in 2017/18 in Music school "Dr Vojislav Vučković" in Belgrade and it is the part of a broader interdisciplinary project "Introducing Dalcroze's method in solfeggio classes in Serbia".

Key words: Emile Jaques-Dalcroze, Eurhythmic, motor skills, pulse, solfeggio classes

Cooperation

The impulse for the commencement of official cooperation in 2013 between Faculty of Choral Conducting, Arts Education, Church Music, Eurhythmics and Jazz of Stanisław Moniuszko Music Academy in Gdańsk and University of Arts, Faculty of Music, Department for Solfeggio and Music Pedagogy from Belgrade (Serbia) was the 19th EAS/ISME Regional Conference, held in 2011 in Gdańsk (May 18–21). The delegated person on behalf of the AM was dr Gabriela Karin Konkol (at the time EAS board member), and the active participant dr Milena Petrović with the presentation "Musical as the Integrative Base for Teaching Music in School".

In 2012, Anna Galikowska-Gajewska participated at the Symposium “Music-Movement-Dance” organized by the Serbian Forum for the Research in Music Education in Belgrade with the lecture and workshop “Dalcroze’s Eurhythmics as the versatile method of music education” (picture 1).



Picture 1: Music education students at the Faculty of Music in Belgrade participated at the workshop “Dalcroze’s Eurhythmic as the versatile method of music education” by A. Galikowska-Gajewska, Belgrade 2012.

In 2013, Gabriela Karin Konkol and Anna Galikowska-Gajewska participated at the 16th Pedagogical Forum of Performing Arts in Belgrade. Konkol led the workshops “Let’s sing, play and move! Active methods of teaching music in the classroom” and Galikowska-Gajewska held the workshop “Music in motion”.

In 2015, Anna Galikowska-Gajewska participated at the 18th PFPA in Belgrade with the lecture “Ear-training by Emil Jaques-Dalcroze” and the workshop “Games and preliminary exercises in ear-training, singing, and rhythmic movement by Emil Jaques-Dalcroze”. In 2016, at the 19th PFPA as the 1st International Conference, Anna Galikowska-Gajewska presented a lecture “Selected pieces of Vera Milanković as a source of inspiration to create Dalcroze’s tasks and exercises” and Gabriela Konkol gave a lecture “Schulwerk by Carl Orff and its application in music education in Poland”.

In 2017, under the project “Introducing and disseminating Emile Jaques-Dalcroze Method in Serbia” (A. Galikowska-Gajewska was the head of a project), the pedagogues from the Academy of Music in Gdansk (from the Department of Eurhythmics and Piano Improvisation) have visited the Faculty of Music in Belgrade. Topics of their presentations were: 1) “Dalcroze’s solfeggio exercises and vocal-rhythmical and movement canons” (the workshop by M. Kamińska, picture 2); 2) “Selected pieces of Vera Milanković as a source of inspiration to create Dalcroze’s tasks and exercises” (presentation and workshop by A. Galikowska-Gajewska); 3) “Harmonic structures for the piano improvisation during the Eurhythmics lesson” (workshop by Taida Wiśniewska); 4) “Music in movement interpretations” (DVD performance by A. Galikowska-Gajewska, M. Kamińska, T. Wiśniewska).



Picture 2: Music education students at the Faculty of Music in Belgrade participated at the workshop “Dalcroze’s solfeggio exercises and vocal-rhythmical and movement cannons” by M. Kaminska, January 2017.

The application submitted by the Stanislaw Moniuszko Academy of Music in Gdańsk, adopted through competitive process concerning the implementation of educational mobility at the Serbian university in the academic year 2016/2017 met the formal criteria and obtained in the qualitative assessment the sufficient number of points to qualify to receiving funding, which then led to signing the agreement within the framework of Erasmus+ program.

The first was the visit of professors from the Faculty of Music to the Academy of Music in Gdansk. Professor Vera Milanković held the lectures and workshops: 1) “Introducing children to basic tonality – the system of Vera Milankovic’s songs to facilitate tonal positions of each scale tone and their relationship”; 2) “The overview of Vera Milankovic’s music for children”; 3) “Musical map of Serbia – metrical hierarchy of Serbian folk songs”. Professor Milena Petrović presented the workshops: 1) “Steps for three different Serbian dances”; 2) “System of music education in Serbia”; 3) “Musical in music education”.

Then the visit of pedagogues from the Academy of Music in Gdansk took place at the Belgrade’s Faculty of Music. Anna Galikowska-Gajewska presented three lectures and presentations: 1) “Eurhythmics and his point in the Polish music education system”; 2) “Dalcroze’s selected tasks and exercises for the pupils of the primary music school”(picture 3); 3) The selected exercises of Dalcroze’s method in the implementation of the theme of the research “The influence of Dalcroze’s exercises on the stress and anxiety reduction”. Gabriela Karin Konkol held a lecture “The System of Music Education in Poland” and the workshop “Creativity in Music Education”.

During the last seven years, the results of a successful cooperation are 12 workshops, lectures and presentations related to Dalcroze’s method, presented by the Eurhythmics teachers from Academy of Music in Gdansk and 4 presentations related to music education methods presented by music education teacher from Academy of Music in Gdansk.

Picture 3: The workshop “Dalcroze’s selected tasks and exercises for the pupils of the primary music school” by A. Galikowska-Gajewska at the Music school “Dr Vojislav Vučković” in Belgrade, May 2017.



Eurhythmics Method in a nutshell

In order to summarize the most important information about the Eurhythmics method, the selected content from the article *Music in motion* (Galikowska-Gajewska, 2014: 157–164) was used. Eurhythmics, which is based on movement resulting from music, is a multifaceted education. It is not only an education in music but also an education through music and movement. At the beginning of the 20th century, its creator – Emil Jaques-Dalcroze “(...) discover a new system of music education, rapidly turned into a versatile (miscellaneous) method for studying the rhythmic and dynamic possibilities of the human body” (Franco, 2005: 5). Dalcroze maintained that body movement can be used to express a music piece. He made this fact the basis of his education, in addition to the development of his threefold curriculum of Eurhythmics, Solfège and Improvisation. These three elements intertwine and supplement one another, creating a multifaceted system of music education granting the access to the world of music, its exploration and experiencing it in motion. The uniqueness of Eurhythmics is to be perceived also in the context of its comprehensive impact on the human activity, in the physical, psychological and mental sphere. Furthermore, performing Dalcroze’s exercises requires the involvement of various activity types such as: auditory, spatial-motor, intellectual and emotional. Exercises suggested by Dalcroze simultaneously train and develop many different skills and dispositions. Eurhythmics works toward better awareness and control of the mental and physical faculties (i.e.: memory, concentration, coordination, the ability to use body weight and/or energy effectively, to have an accurate sense of time, an acute awareness of space, and a firm understanding of the creative powers).

Emil Jaques-Dalcroze dedicated his method to all those who perform on stage; that is why Eurhythmics constitutes an important link in the process of teaching professionals: musicians, dancers, actors and vocalists. Six Polish music

academies¹ offer Eurhythmics courses at undergraduate and graduate levels. However, the amateur movement allows children, young people and adults also to experience music in movement.²

The contemporary Polish landscape which encompasses both professional Eurhythmics education and its availability to a broader range of participants, demonstrates the influence of the Dalcroze's method. In Poland, children in nursery schools participate in Eurhythmics classes, where they have the opportunity to encounter the fascinating universe of music and discover its beauty in the form of spatial-motor activities. However, the first stage of the professional music education is the music school of 1st degree. The pupils of the 1st, 2nd and 3rd year attend obligatory classes of Eurhythmics and Ear Training. Dalcroze's method is the basis for music education for all children who start to learn playing a particular musical instrument. Clear and simple rules of Dalcroze's method (Time plus Space plus Energy, Theory follows practice, Joy – union of Body, Mind and Spirit, Listening – The basis of a music education, Positive self expression – the aim of Eurhythmics) are the key factors of its effectiveness. Dalcroze himself states that: "The aim of Eurhythmics is to enable pupils, at the end of their course, to say, not *I know*, but *I have experienced*, and so to create in them the desire to express themselves; the deep impression of an emotion inspires a longing to communicate it, to the extent of one's powers, to others" (Jaques-Dalcroze, 2000: 63).

Using these main Dalcroze's rules during the Eurhythmics lessons is the best way of understanding and learning music in motion. Eurhythmics relates to education by placing the emphasis on the co-ordination and development of the person through music and movement. The Eurhythmics lesson consists of many exercises and tasks, focused on the main issues such as:

1. Exercises in muscular relaxation and breathing
2. Metrical division and accentuation
3. Rapid conception of bar-time by the eye and ear
4. Development of spontaneous will-power and faculties of inhibition
5. Exercises in concentration; creation of mental hearing of rhythms
6. Immediate realisation by the body of musical rhythm
7. 'Pathetic' accentuation – dynamics and agogics nuances (musical expression)
8. Exercises in improvisation (cultivation of imaginative faculties) (Jaques-Dalcroze, 2000: 65–72)

¹ Studies of the 1st and 2nd cycle in Eurhythmics are offered by the Music Schools in Gdańsk, Poznań, Łódź, Kraków, Katowice, and by the University of Music in Warsaw.

² Eurhythmics classes are organised in local and cultural centres, educational care centres, therapeutic centres, cultural and educational institutions and non-school educational centres.

During each of such Eurhythmics lessons, the exercises covering the above listed topic areas are performed. The basic exercises and principles of Dalcroze's Eurhythmics have become a starting point for the implementation of collective, interdisciplinary scientific research on: *The influence of Eurhythmics method (selected tasks and exercises of Dalcroze's method) on motor skills and a sense of pulse*. The first pilot study will be conducted in 2017/18 school year in Music School "Dr Vojislav Vučković" in Belgrade. The study is part of a broader project entitled: *Introducing Dalcroze method in solfeggio class in Serbia*.

Typical Dalcroze's exercises have been selected and developed in terms of the main subject for this pilot study. All tasks have been prepared with the participation of pupils of classes 1–3 of the 6-year children's cycle of Witold Lutosławski State Music School in Starogard Gdański.³ The co-author of the article Anna Galikowska-Gajewska, employed there as a Eurhythmics and Ear training teacher, video-recorded 11 examples of exercises and creative tasks, which constitute the main body of didactic material for the pilot study implementation in Belgrade music school. She also prepared and recorded a number of separate audio files, examples based on her own concept aiming at performing particular exercises. These examples include: walking to the music, exercising with pause in music, inhibition and incitation exercises, echoing rhythm and movements, polymetric exercises, breathing practice, performing improvised movements to music and relaxation exercises. Typical Dalcroze's tasks were selected with regard to their maximum usefulness for conducting pilot studies related to motor skills and a sense of pulse. Simultaneously, their use is always connected with reaching the teaching goals, which were quoted here after Elizabeth Vanderspar:

"General, such as:

- Listening
- Musical awareness through sense
- The development of motor and music skills
- Concentration
- Development of inner hearing
- Reaction and adjustment: instant or considered
- Alertness and readiness to learn
- Analysis and synthesis etc.

³ State I Degree Music School in Starogard Gdański was established in 1971. In 1995 the school was named after Polish composer Witold Lutosławski. The school is artistic education facility on the elementary level on two educational cycles: 6-year and 4-year cycle in the faculties of Piano, Accordion, Violin, Guitar, Cello, Double bass, Trumpet, Clarinet, Saxophone, Flute and Percussion. Children learn to play music instrument during one-to-one lessons, whereas theoretical subjects are taught in groups. For pupils of classes 1–3, theoretical subjects include: Eurhythmics and Ear training.

Musical, leading to the understanding of:

- Dynamics and agogics (nuances)
- Polyrhythm, counterpoint
- Pitch and melody
- Sense of rhythm (rhythmic feel and movement)
- Pulse, beat and metre
- Duration and pattern
- Mechanical rhythms
- Natural rhythm
- Play rhythm
- Speech rhythm
- Time, timing and tempo
- Timbre
- Silence
- Musical notation (when appropriate)
- Phrasing and form
- Repertoire, etc.

Movement, moving through space:

- Start and stop
- Time, space and energy relationships
- Forward flow of rhythmic movement
- Natural movement: walk, run, skip, hop, gallop, jump, leap, combined in many ways and at different speeds
- Use of nature's shock absorbers (ankle, knees, feet, hips, etc.)
- Balance exercises of various kinds" (Vanderspar, 2005: 5–6).

The basis for all Dalcroze's exercises is the close relation between music and movement. The simplest way to define this method is to say that it is based on following music and the sounds which become the impulse for movement. All method is based on music "(...) because music has a strong psychic force which, by its power of evoking action and then regulating it, can harmonise our whole being" (Jaques-Dalcroze, 1971:10). Moreover, it should be noted that Emil Jaques-Dalcroze determined his method as: "(...) creating in the organism simple and fast communication between all of the centres of movement and thoughts" (Institute Jaques-Dalcroze, 2005).

During Eurhythmics lessons, the live music improvised by teacher is the basis for the performance of all tasks. It is the live improvised music which inspires, motivates, stimulates and shapes the movements expressed by students during the exercises. The simple, straightforward but also artistically valuable music stimulates not only rhythmic movement but affects its aesthetics as well.

Below you will find a brief description of selected Dalcroze's exercises to be used in the pilot study.

- *Walking with music* is the exercise at the beginning of each lesson. The task is a quick motor reaction, mostly the change of pace. The teacher usually suggests music for the pupils to walk along with, to run or to jump and they move accordingly – march, run or jump.
- *Exercises with pause in music* concern pupils move according to the music being played. When there is a pause in music, they freeze and stay motionless. In this exercise the task is not only to follow music with steps, but also to immediately react to the pause in music when they must stop moving. The impulse to resume walking are the sounds subsequently played by the teacher. This exercise, as many others, developed a quick response to a stimulus – the sound of music.
- *Inhibition and incitation exercise* includes stepping along with the music and reacting to commands or musical prompts in a manner defined by the teacher. For example: when they hear the prompt *hop!* they jump up 4 times; when they hear *stop!* they freeze in one spot for a definite time; when they hear *backwards!* they walk 4 steps backwards. This exercise is typical for Dalcroze's Eurhythmics, "[...] develop a quick psychomotor reaction and cultivate the skill of self-control (both in physical and psychological sense)" (Brzozowska-Kuczkiewicz, 1991: 96). It enables students to learn to stop instantly or slowly, to shift from one performed activity to the next, or add another activity to the one already performed.
- *Echoing rhythm and movements* start when teacher plays one-bar rhythmic themes in 4/4 metre. Pupils echo without analysing the rhythmic values: clap their hands, play percussion instruments or express the rhythm of particular themes by means of movements. Such exercise prepares introducing the canon and teach how to focus and broaden the attention span.
- Polyrhythmic exercises start teacher by playing different rhythmical values such as quarters in low register and eighths in high register. Initially the teacher plays only quarters or only eighths. Then, two values are played simultaneously – polyrhythm is thus created. The pupils' task is to react quickly to musical prompts. When they hear quarters they walk, when they hear eighths they clap their hands and stop in one place. When they hear both values played by the teacher at the same time, they simultaneously walk and clap hands. "Polyrhythm is facilitated by the cultivation of automatisms. An arm will execute a rhythm automatically, while the mind regulates the execution of a second rhythm by another limb" (Jaques-Dalcroze, 2000: 70).
- *Improvised movements to music* mean that teacher plays while pupils are inspired to make different movements according to the given musical form and musical nuances. The pupils let themselves go along with the music – they move expressing the music with their movements. It should

be remembered that the simplest forms of illustrating music in movement and space by the youngest children in the first place relate to the visualization of the elements of the music work, as described by Dalcroze: "Rhythm, like dynamics, depends entirely on movement, and finds its nearest prototype in our muscular system. All the nuances of time – allegro, andante, accelerando, ritenuto – all the nuances of energy – forte, piano, crescendo, diminuendo can be realized by our bodies, and the acuteness of our musical feeling will depend on the acuteness of our bodily sensations" (Jaques-Dalcroze, 2000: 60). "The dynamic in the body is related to the muscular system. Every dynamic tones we can express through the correct tension and relaxation of the muscles. But we also need to link this issue with the size of the movement and the space. We realized that it isn't easy to practice the tension muscles with children. So we need support in the form of props, such as: kerchiefs, lightweight fabrics, ribbons, rubber bands etc." (Galikowska-Gajewska, 2017: 43). Performing improvised movements to the music, like every kind of improvisation (instrumental or vocal) "(...) leads to manifesting oneself, to a certain type of individualisation, allows one to get rid of inhibitions in terms of movements, stimulates the imagination, makes a person open for others and for the surrounding world (Galikowska-Gajewska, 2015: 225). Improvisation is the basis of Dalcroze's method. Its importance is certified by the words of F. Marin "Improvisation is the basis, nothing more and nothing less" (Brzozowska-Kuczkiewicz, 1991: 41).

The exercises presented above are merely suggestions which can be modified as regards their level of difficulty in order to adjust them to the psycho-motor abilities of the participants of eurhythmics lessons.

Gesture and Movement in Music and Singing

In the process of learning music the space-body relation is of great significance and value, as it develops kinesthetic imagination and muscular memory (Caldwell, 1995; Henke, 1990; Hylton, 1987; Mead, 1994). The main importance of gesture and movement in music education is to help students to relax and breathe more deeply while singing or playing. Voice, gesture and motor image create mental schemas that are important in music memory and reproduction (Shehan, 1987; Taylor, 1989): the stronger the motor image, the longer it remains in memory (Mead, 1994). Motor image in memory have a strong impact on singing (Apfelstadt, 1985; Caldwell, 1995; Campbell & Scott-Kassner, 2009; Hibbard, 1994; Langness, 1997; Liao, 2008; Mueller, 1993; Phillips, 1996; Rutkowski & Trollinger, 2005) and cognition of melody (Apfelstadt, 1988; Campbell & Scott-Kassner, 2009; Mueller, 1993; Shehan, 1987; Taylor, 1989). It has been found that gesture (technique) and

movement (training) develop and improve children's good intonation and singing in tune (Chagnon, 2001; Hibbard, 1994; Liao, 2008; McCoy, 1986; Mueller, 1993; Wis, 1999; Liao & Davidson, 2016). They build up the body to support gestures and to be an effective instrument, especially develop hand expression to improve intonation. Movement training includes: balance exercises, physical centeredness, grounding, posture and alignment, moving through space, controlling the whole weight of body movement. All the movement training programs were based on Dalcroze's Eurhythmics.

Pilot Studies

In publications on the psychology of music quite a lot of attention is devoted to the issues related to the children's motor skills, focusing primarily on the pre-school period. This particularly dynamic time begins more or less in the fifth year of a child's life and is called a golden period in terms of motor skills development (Kielar-Turska, 2003). It is also reflected in the increased precision of performed rhythmic tasks. An evident improvement of coordination between motor skills, pulse and musical rhythm occurs between fourth and sixth year. Five-year old children are able to synchronize movements with just a little less precision than adults (Gerard & Auxiette, 1992). Memory and the perception of rhythmical realization also develop dynamically at that same age. Four-year old child can already differentiate between slow and fast pace, which constitutes the main aspect of experiencing music. However, the majority of children at that age cannot make a comparative assessment: slow-slower or fast-faster. Four-year olds prefer rhythms in which they are able to recognize regular structures (Zenatti, 1993), whereas five-year olds do not have problems with perception and reproduction of dotted rhythm of eighths or sixteenths. This is probably connected with the fact that five year olds and older children have more advanced sense of time (Dowling, 1999). The fifth year of a child's life is also marked by the ability to keep the steady pulse in all manifestations of musical activity (movement to the music, singing, playing a musical instrument). Although earlier studies conducted in the 1970s confirmed the development of metric sense only between the age of seven to nine (Gembris, 2006), more accurate measurement techniques as well as common presence and cultural impact of media seem to prove the earlier development of those skills nowadays. Between the eight and nine year of age, further progress in the performance of rhythmic tasks can be observed. In ten-year olds there is a noticeable progress regarding the perception of rhythm and melodic memory. Another developing skill is recognizing and understanding the role of cadence (Shuter-Dyson & Gabriel, 1986).

The first phase of our common project includes the pilot study "The influence of Eurhythmics method (selected tasks and exercises of Dalcroze's method) on motor skills and a sense of pulse" that will be undertaken at the Music school "Dr

Vojislav Vučković” in Belgrade in 2017/18 school year. *Main aim* is to enhance rhythmic perception, appreciation (i.e. cognition) and performance. *Specific aim* is to improve gross motor coordination and pulse tracking in order to enhance rhythm performance of the curriculum task at the end of the year. It will be the exploratory study with experimental and control group. Selected Dalcroze’s exercises performed by the first to third grade pupils from “Witold Lutosławski” State Music School 1st degree in Starogard Gdański (Poland) will be introduced in experimental group. It will be 15 minutes of each solfeggio class (twice a week) for the selected tasks and exercises of Dalcroze’s method from September 2017 to the end of April 2018, summing up between 55 and 60 class hours. It makes around 15 hours of Dalcroze’s exercises in 2017/18 school year.

Control group will have traditional solfeggio curriculum classes.

Our *sample* will encompass students of the 2nd, 4th and 6th grade in Music school “Dr Vojislav Vučković” in Belgrade (about 50 in each group) aged 8 to 13. They will perform two tasks:

1. Pulse tracking task following Grieg’s “In the Hall of the Mountain King” piece from the suite “Peer Gynt”.
2. Polyrhythmic task: rhythmic exercise in two voices, taken from the 2nd, 4th and 6th grade of traditional music curriculum.

Pretest and posttest performance will be rated on four degree scale by three evaluators/teachers of solfeggio from Belgrade music schools. Evaluation criteria will be pulse tracking precision and movement skill in both tasks, with accuracy of performance in second one. We expect significantly better performance in the experimental group.

The theoretical background is based on the significance of movement in the choral training (Apfelstadt, 1985; Caldwell, 1995; Chagnon, 2001; Ehmann, 1968; Henke, 1990; Hibbard, 1994; Hylton, 1987; Liao, 2002, 2004; Liao & Davidson, 2007; McCoy, 1986; Peterson, 2000; Wis, 1999). The positive results of introducing movement in music education are: 1) enhancing expressive performance; 2) improving the comprehension of musical concepts; 3) promoting vocal technique; 4) correcting vocal faults.

Future plans

The next project is planned to be an interdisciplinary scientific research concerning the influence of Eurhythmics method (selected tasks and exercises of Dalcroze’s method) on motor skills and a sense of pulse as well as on reducing the performance anxiety among pupils of music school in Belgrade.

Stage fright is a commonly occurring phenomenon (Steptoe & Fidler, 1987). As many as 70% of musicians admitted that it significantly affects their performance in a negative way, and as many as 16% of them experienced serious anxiety more than once a week (Kenny 2005). Not only choir members (Kenny, Davis & Oates

2004; Stothert, 2012), professional opera singers (Kokotsaki & Davidson, 2003), or instrumentalists (Sinico & Winter, 2013), but also three or four-year old children who learn to play musical instruments face negative experiences during public performances (Boucher & Ryan, 2011; Ryan, 2003). It must be emphasized here that persons taking regular music lessons from early childhood are characterized by higher susceptibility to anxiety than the rest of the population (Kemp, 1981). Stage fright in the youngest children, due to its consequences such as abandoning the musical career, is becoming more and more popular topic of psychological publications. In such cases the essential stress management preventive measures in the youngest children should focus on raising awareness, reduction and optimizing stress experienced by the youngest representatives of musical profession already during the course of their education in the first grade of music school. The choice of appropriate methods aiming at dealing with the stage fright is of the primary importance. Which of them can be recognized as the most effective ones?

Numerous reports on the effectiveness of programs based on the bodywork paradigm (e.g: Alexander technique) lead us to believe that regular movement-oriented activities positively affect the physiological process of acquiring the ability to reduce muscle tension (Klein, Bayard & Wolf, 2014). Furthermore, many research results (Riethmuller, Jones & Okely, 2009) highlight the significant and positive correlations between targeted physical activity of a child and its harmonious motor development. It must be noted that the pre-school period is a sensitive time for the acquisition of proper motor habits and for the general motor skills. These factors are also an important predictor of physical activity in adulthood (Wrotniak et al., 2006), and the active participation in motor-oriented activities increases self-esteem (Ulrich, 1987), improves cardiopulmonary efficiency (Okely, Booth & Patterson, 2001) and helps to prevent obesity (Okely, Booth & Chey, 2004). Moreover, those programs of motor development whose integral element is music turn out to be not only more attractive, but also much more effective (Deli et al., 2006). Songs featuring motor-based activities are particularly popular with children and they provide an excellent tool for supporting fine motor skills, learning names of body parts or playing together with parents and peers (Kenney, 1997). Positive results have been found in precision of movement performance and general stamina in children during the performance of motor tasks synchronized with rhythm (Anshel & Marisi, 1978). Music has the full potential of representing each movement of a child (Kenney, 1997) and favors faster acquisition of motor patterns (Painter, 1966). Can movement-oriented activities contribute to stress reduction?

Conducted studies conclusively indicate that consistently performed motor exercises raise kinesthetic body awareness and subdue the process of unconscious suppression of movement. They are equally effective in eliminating redundant motor habits restraining the instrument playing practice. Additionally, natural

positioning of the head, neck and spine reinforces the sense of balance, strength and coordination (Kenny, 2005). This conscious kinesthetic re-education is also beneficial for the fluent and natural movement and has a tremendous influence on the rhythm of breathing, which in turn contributes to the reduction of discomfort caused by stress (Klein, Bayard & Wolf, 2014).

Conclusion

The aim of the pioneering actions undertaken up to now is to introduce Emil Jaques-Dalcroze's method in Serbia, where it is little-known. Systematically familiarising Serbian students and pedagogues with the theoretical knowledge and practical issues related to the Eurhythmics method was carried out within the Pedagogical Forum of Performing Arts organized annually by the Faculty of Music University of Arts in Belgrade. Since 2012, pedagogues from Gdańsk shared their knowledge and experience through the lectures and workshops, presenting their results in the discussed areas. The outcome of these actions is growing interest in the Eurhythmics method in Serbia. Systematic cooperation led to the development of a common ground for interdisciplinary research on *The impact of Dalcroze's exercises on the stress and anxiety reduction*. At the same time, basic exercises and principles of Dalcroze's Eurhythmics have become a starting point for the implementation of collective, interdisciplinary scientific research on: *The influence of Eurhythmics method (selected tasks and exercises of Dalcroze's method) on motor skills and a sense of pulse*. The first pilot study will be conducted in 2017/18 school year in Music School "Dr Vojislav Vučković" in Belgrade. The study is part of a broader project entitled: *Introducing Dalcroze's method in solfeggio class in Serbia*.

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УВОЂЕЊЕ ЕУРИТМИКЕ – МЕТОДЕ ЕМИЛ ЖАК ДАЛКРОЗА У СРПСКЕ МУЗИЧКЕ ШКОЛЕ – МЕЂУНАРОДНИ ИНТЕРДИСЦИПЛИНАРНИ ИСТРАЖИВАЧКИ ПРОЈЕКАТ

Сарадња између Факултета за хорско дириговање, црквену музику, уметничко образовање, еуритмику и цез на Музичкој академији у Гдањску и Факултета музичке уметности Универзитета уметности у Београду започета је 2012. године и од тада непрекинуто траје до данас. Појачана сарадња између два факултета довела је до реализације Erasmus+ програма у току 2016. године, унутар којег је остварена размена професора. Уследила је, затим, и пилот студија спроведена у току 2017/18 године у Музичкој школи „Др Војислав Вучковић” у Београду, као и проширени пројекат који се фокусира на значај методе еуритмике за развој моторичких способности и осећаја за пулс, али и на смањење извођачке напетости код ученика на узрасту од 10 година. Главни циљ сарадње је увођење Далкросовог метода еуритмике у музичке школе у Србији. Далкроз метод подразумева музичко образовање кроз покрет, јер природни и једноставни говор људског тела омогућава индивидуални доживљај музике, дубоко осећање и боље разумевање музике. Далкроз метод представља значајну полазну тачку за развој инструменталних и вокалних способности ученика, те сматрамо да би требало да постоји у оквиру професионалне обуке музичара.

Кључне речи: Емил Жак-Далкроз, еуритмика, покрет, пулс, извођачка напетост