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SZABADKA  
SUBOTICA  
2018**



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**BOOK OF SELECTED PAPERS OF THE HUNGARIAN  
LANGUAGE TEACHER TRAINING FACULTY'S  
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**УНИВЕРЗИТЕТ У НОВОМ САДУ УЧИТЕЉСКИ ФАКУЛТЕТ НА МАЂАРСКОМ НАСТАВНОМ ЈЕЗИКУ У СУБОТИЦИ  
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## BODY PERCUSSION: A PREVENTION PROGRAM IN EVERYDAY TEACHING PRACTICE

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### *Abstract*

Recent studies have mostly confirmed Gardner's multiple intelligences theory. Music is an exceptional education medium, as it develops all the intelligences, not just the musical one. Therefore, a wider use of music in education should be considered. Body percussion is already in use in music therapy sessions, as it has positive effects on patients with various medical diagnoses. The aim of this paper is to point out the benefits of practicing body percussion in prevention of those diagnoses. As a school activity it can be easily included in everyday school routine: it does not require instruments or any special tools, it can be practiced in a multilingual ambience and it is suitable for all age groups.

**Keywords:** *Gardner's multiple intelligences theory, body percussion, music therapy, music in education system*

### 1. Introduction

The topic of school reform is currently very popular in Croatia. Everybody is dealing with this "hot potato": politicians, educators, scientists, journalists and the general public. There is a lump presumption that the education system is not adequate, the results of PISA testing<sup>1</sup> of Croatian students are cited and the culprits are called out, but the problem is not being solved. The media is full of bombastic headlines claiming that students are increasingly becoming illiterate, they cannot handle more complex mathematical tasks and their general culture is at a very low level<sup>2</sup>. On the other hand, there are frequent complaints that programs and teachers are too demanding, that students schoolbags are too heavy and the like. In elementary schools, everybody is concentrated on "important" school subjects that are being tested on a national scale: mathematics, informatics, languages and science. The art subjects are marginalized and reduced to decorative role. Since the late nineties music is no

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<sup>1</sup> Read more about PISA testing: <http://pisa.hr/>.

<sup>2</sup> There are many newspaper articles that can be cited, and some of them are: "Shameful answers of high school students of Split on questionnaire about general culture"

(<http://www.slobodnadalmacija.hr/novosti/hrvatska/clanak/id/47135/sramotni-odgovori-splitskih-srednjoskolaca-na-pitanja-iz-opce-kulture-vlado-gotovac-je-simonin-djever>), "Our students mathematically and linguistically illiterate!" (<https://www.tportal.hr/vijesti/clanak/nasi-ucenici-matematicki-i-jezicno-nepismeni-20140408/print>), "Perhaps it sounds rough and embarrassing, but a third of our students are functional mathematical illiterates" (<https://www.vecernji.hr/auti/mozda-zvuci-grubo-i-neugodno-ali-trecina-nasih-ucenika-je-funkcionalno-matematicki-nepismena-1159817>), "Why are the fifteen-year-olds of Croatia so illiterate?" (<https://www.jutarnji.hr/vijesti/hrvatska/zasto-su-hrvatski-15-godisnjaci-toliko-nepismeni-ne-znaju-pronaci-ni-knjige-u-knjiznici/925943/>), "The world of seemingly literate" (<https://www.skolskiportal.hr/kolumne/kako-motivirati-ucenike/svijet-prividno-pismenih/>), "Croatian students below the average in all areas, every fourth 15-year-old illiterate in science" ([http://www.novilist.hr/Vijesti/Hrvatska/Hrvatski-ucenici-ispod-prosjeka-u-svim-podrucjima-svaki-cetvrti-15-godisnjak-prirodoslovno-nepismeni?meta\\_refresh=true](http://www.novilist.hr/Vijesti/Hrvatska/Hrvatski-ucenici-ispod-prosjeka-u-svim-podrucjima-svaki-cetvrti-15-godisnjak-prirodoslovno-nepismeni?meta_refresh=true))

longer taught for two lessons per week, but only one, and that adds up to only 35 lessons per year. Besides music, art and craft subjects had the same reduction in number of lessons. The official justification of this was “to reduce student’s burden”. On the other hand, the scope of the content and factography that needs to be learned within these subjects was not reduced, and that means that teachers have to “run through” the most of the curriculum. Subjects organized in that way lose their educational role and become redundant.

The authors believe that in today's digitized world, it is needles to learn factography - almost every student has a smart phone in his pocket and constant access to the internet so he can reach out for all the information available at any time. It is more important for students to learn to use the information available and to teach them to think and creatively tackle problems. The arts of all kinds can greatly help, because they have been proven to inspire the creative expression of students of all ages (Kim, et al. 2012). Music is special in that, as opposed to visual arts, it allows direct interaction. Therefore, more lessons should be devoted to art and music, so students could be more successful in all "important" subjects. In addition, modern curricular tendencies tend to decrease the number of subjects, not to the reduction of contents, but to their integration.

Classroom teaching in first four grades of elementary school, being taught by a single class teacher, could be fully integrated, but teachers still keep schedules with clearly separated subjects. The aim of this paper is to outline the benefits of musical activities in teaching, and to propose body percussion as an activity that could easily be included in everyday teaching.

## **2. Music and education**

### *2.1 Multiple intelligence theory*

In contemporary pedagogical practice, Gardner's theory of multiple intelligences is generally accepted (Gardner, 2011). He defined them as: linguistic, logical-mathematical, spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal and natural. Recently we can also find a mention of the ninth – existential kind of intelligence (Posavec, 2010). Both theorists and practitioners are fond of Gardner's theory, because it has a positive attitude toward education and encourages individual approach to teaching. It promotes the opinion that every child is gifted and intelligent, it only uses different types of intelligence at a different time and ratio (Armstrong, 1999). “Contemporary pedagogy, therefore, encourages the use of different learning methods that will activate as many different intelligences as possible. Practicing music, apart from musical intelligence, can use almost all other intelligences. If we understand music as a means of communication, we use linguistic intelligence<sup>3</sup>. We use logical-mathematical intelligence when analyzing musical works and observing patterns and regularities in musical form. When we play music, we use spatial and body-kinesthetic intelligence. Since music requires a degree of introspection and knowledge of its abilities and limitations, we can say that it also activates interpersonal intelligence. Intrapersonal intelligence is needed in group or orchestral music” (Popović, Popović and Bogut, 2017, p. 675). Many musicians will also use natural intelligence while seeking inspiration in nature. Philosophical view of music activates existential intelligence. Music in education can therefore be considered as important in a comprehensive approach to teaching: various musical activities can activate all kinds of intelligences.

### *2.2 Music in education system*

In the 1980's, everybody began to question the previous, rigid system of teaching. Scientists tried to devise a new "pupil-sized school" and "prepare young people for the 21st century" (Barbir et al, 1991). In our region, an active research project entitled, Internal Reform of Primary School and Preparation of Youth for the 21<sup>st</sup> century was realized. Scientists and experts came up with valuable conclusions that complement Gardner's theory of multiple intelligences, but then the war interrupted this project. The next effort in the modernization of teaching was invested years later at the beginning of the current curricular reform. On October 17<sup>th</sup>, 2014, the Parliament adopted the Science and

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<sup>3</sup> Music theorists have been discussing whether music can be considered a language for few centuries. Today, we found middle ground in conclusion that music is a language, but of a special sort (Jauk, 1995).

Technology Education Strategy as the umbrella document defining the goals of education. In it, it was stated: "By the mid-2000's primary and secondary education system in Croatia is characterized by the exclusive focus on content prescribed by curricula and programs. Since the beginning of the last decade, education policy has been gradually trying to design and implement certain changes with the aim of modernizing the system in the form of shift from content orientation to focus on educational outcomes (learning outcomes) and from exclusive content transfer to competency development" (*Strategija obrazovanja, znanosti i tehnologije*, 2014). The first step in this was the introduction of the National Framework Curriculum (*Nacionalni okvirni kurikulum za predškolski odgoj i obrazovanje te opće obvezno i srednjoškolsko obrazovanje*, 2011). Within the framework curriculum, the education and training areas of general compulsory and secondary education are defined. Among them is an art area that includes visual arts and design, music culture and art, film and media culture and art, drama culture and art, and arts of movement and dance. In the description of the area, "arts in education and training contribute to the mind, sensory, emotional, social, bodily, spiritual and creative development of students; enable the connection of individual learners' knowledge, knowledge and experiences with other educational areas and their integration into wider social and cultural value systems and worldviews." (*Nacionalni okvirni kurikulum za predškolski odgoj i obrazovanje te opće obvezno i srednjoškolsko obrazovanje*, 2011, p. 208). The defined goals of the art area are, among others, "to develop observation by means of more senses, concentration, tenderness, curiosity, spontaneity, independence and social skills, and on that basis to develop individuality and self-determination and desire for lifelong learning. Develop practical work skills and work culture with standalone and collective forms of artistic activities and student creativity, which will be able to be applied in everyday life. Developing collaborative relationships and empathy in joint activities and creative work with peers, especially those with special needs" (*Nacionalni okvirni kurikulum za predškolski odgoj i obrazovanje te opće obvezno i srednjoškolsko obrazovanje*, 2011, p. 209). However, the 2006 curriculum for primary school is currently still in use (*Nastavni plan i program za osnovnu školu*, 2006). In it, different musical activities are foreseen only within the subject of Music Appreciation, which is contrary to the ideas of content integration contained in the framework curriculum.

Unfortunately, the reform has become obsolete before it has even started. In recent years, a so-called STEM education system has been getting a lot of attention. This program is integrating the contents of four subjects: science, technology, engineering and mathematics into one whole, with emphasis on practical, rather than theoretical approach. The goal of this STEM system is "to give students specific competencies needed for advancement in the 21<sup>st</sup> century: critical thinking, problem solving, creativity and innovation, entrepreneurship and the like" (Popović, Popović and Bogut, 2017, p. 674). This approach enables students to learn in mixed learning environment and, as Velički and Topolovčan pointed out "the significant thing is, and the neurosciences point to that, that learning process has to be meaningful, connected to real situations (contextualized), pointed to problem solving and research, collaborative and conducted through games" (2017, p. 85). Furthermore, in order to enhance the enriched learning environment, the scholars introduced STEAM education system, adding arts into the program (Kim et al. 2012). Jolly (2014) points out several ways in which art can be involved: in design, performing arts (especially acting and narration) and creative planning. Music is not specifically mentioned, although it has proven positive effects on children's learning process. Today's subject called Music Appreciation does not have the same function as music in STEAM system. The subject of Music Appreciation has the aim to teach students about music, and music in SEAM system is treated as a tool to more successful learning. As Brđanović (2017) distinguishes: there is education through music, and there is music education itself. In this paper, we will point out the possibilities of education through music. Body percussion, a music activity this paper suggests as a learning tool, does not have the purpose of educating students IN music, but rather to educate them WITH music, through the implementation in classroom teaching. As Brđanović says: "scientific knowledge and results from practice point to the need for a new reflection on the role of music and music teaching at school. Music is close to young people and attracts their attention so it shows that with the help of music - developing music competencies, integrating music into teaching lessons or using music as auxiliary in teaching - it is possible to reach a large number of students, stimulate their interest in school and back up learning and development of many other, non-musical competencies" (2017, p. 443). Therefore, music activities of any kind, including body percussion, could be the binding matter that integrates educational areas into one whole.

### *2.3 The benefits of music education*

When describing benefits of music education, Popović stated: „For more than twenty years, experts have been pointing out the advantages of early musical education for children. There is more and more evidence that musical expertise has profound consequences on the anatomical and functional organization of the human brain and the brain of a musician is consequently recognized as a good model of brain plasticity. In the media, the most popular is the so-called “Mozart effect”: passive listening to music (mostly Mozart) leads to an almost immediate improvement in solving the IQ tests. Many studies deal with the study of the “Mozart effect” and the results are amazing: the improvement is immediate, and with regular listening to music, even permanent. In addition, the fact that music education increases the amount of grey matter in the brain is often emphasized. Furthermore, a link between early learning to music and increased ability to learn, read, and write was also found (Popović, 2015, pp.584-585). These points have also been medically confirmed: there are studies that show that music education of children can have positive effects on linguistic abilities (Moreno et al., 2009). They also show that it can help in developing reading and writing skills (Cogo-Moreira et al., 2013). Music is also used in helping students with dyslexia (Overly, 2000). There are attempts to use music as a tool in diagnosing dyslexia (Rauschenberger, 2017). Musical activities link motor and cognitive functions in the brain, which helps in preventing Alzheimer's and Parkinson's diseases (Bilhartz, Bruhn and Olson, 1999, White-Schwoch et al., 2013). Learning music, apart from evident cognitive benefits, also has many useful non-cognitive effects: "sharing love for certain type of music almost automatically connects people. Music can encourage children to sing along or dance, which encourages interaction with others. Parents are encouraged to sing to their children even before birth, because it creates a bond with the child at a very early stage of development. With regular practice of playing an instrument, small children improve their motor skills. Psychological effects should not be neglected as well: by playing music, children develop positive self-awareness and self-confidence. We are also very familiar with the effects of music on the mood, and it could also serve to children as a means of expressing feelings when they do not know or cannot express them with words. Playing an instrument also improves concentration and teaches responsibilities, which indirectly leads to a child's positive conception of himself" (Popović, 2015, pp. 585-586). Music is a universal language, therefore it is very useful as an education tool when dealing with multiethnic and multilingual groups of students.

### **3. Body percussion**

There is a well-known theory that explains the idea that human voice and body were first musical instruments used: firstly, for communication, and then for creating music. The whole branch of science is devoted to exploring the verbal and non-verbal ways people communicate: communication studies (Marsen, 2006, Supićić, 1964, Kunczik and Zipfel, 1998). Various musical games that include clapping hands, snapping fingers, tapping different parts of one's body and producing different sounds of voice are used for communication by small children even today. These games have lately been the focus of interest not only by communication studies scholars, but also by experts from medical, musicological, psychological and pedagogical areas. A term that defines these activities, body percussion, is now used very widely and often. Scholars argue that body percussion stimulates various physical, mental and social developments of children (Romero-Naranjo et al., 2014, Ahokas, 2015). According to Popović, Popović and Bogut, “there is evidence that it improves motor skills and cognitive functions. This implies hearing, visual and kinesthetic concentration. Being practiced in a group can help develop social skills and self-awareness of students, and there are studies that show that it helps to reduce stress and anxiety” (2017, p. 676). There are several methods used, like BAPNE (Biomechanics, Anatomy, Psychology, Neurology, Ethnomusicology) or Edgar Willems (Cozzutti et al., 2014). We can even link today's body percussion methods to Dalcroze Eurhythmics that was first introduced in 19<sup>th</sup> century, and is being revisited today (Kivijärvi, Sutela and Ahokas, 2017).

#### *3.1 Body percussion in classroom*

Body percussion is easy to incorporate into everyday teaching, especially in the first few years of elementary school. It does not require special tools and instruments and can be practiced in any given space. It is well-suited even at an early age, and students do not need any foreknowledge. They are actively making music, but they are using their own bodies as instruments. Teacher's manuals that

include simple music games with clapping fingers and the like, especially in the German speaking area (Dahmen, 1997). There are well-known children songs that include elements of body percussion. One of the most famous examples of such a song is certainly the traditional song "If you're happy" ("Kad si sretan"). The text of the song refers to the rhythmic actions we perform with the body:

If you're happy and you know it, clap your hands (clap clap)  
If you're happy and you know it, clap your hands (clap clap)  
If you're happy and you know it, then your face will surely show it  
If you're happy and you know it, clap your hands. (clap clap)

If you're happy and you know it, stomp your feet (stomp stomp)  
If you're happy and you know it, stomp your feet (stomp stomp)  
If you're happy and you know it, then your face will surely show it  
If you're happy and you know it, stomp your feet. (stomp stomp)

If you're happy and you know it, shout "Hurray!" (hoo-ray!)  
If you're happy and you know it, shout "Hurray!" (hoo-ray!)  
If you're happy and you know it, then your face will surely show it  
If you're happy and you know it, shout "Hurray!" (hoo-ray!)

If you're happy and you know it, do all three (clap-clap, stomp-stomp, hoo-ray!)  
If you're happy and you know it, do all three (clap-clap, stomp-stomp, hoo-ray!)  
If you're happy and you know it, then your face will surely show it  
If you're happy and you know it, do all three. (clap-clap, stomp-stomp, hoo-ray!)  
(<https://www.scoutsongs.com/lyrics/happy.html>)

Children of all ages (even adults) are always happy to participate in the performance of this song, just because of its rhythmic element. It is performed in the group, and each re-performing of that song is performed in the same way. It is possible to make the song "more interesting" by dividing the children into groups, so one part is in charge of singing, and the other for body percussion elements in the poem, one can sing it as a solo and the like. Because the structure of this poem is invariable, it is easy to learn it by the demonstration method even at the age of three.

A little more complicated is the regional song "We're cheerful children" because it involves imitation:

We're cheerful children,  
We'd gladly play,  
But we don't know what!  
Tell us, Marica,  
What would your little hands do?

All of you, do the same as me!  
That amuses me very much,  
We all do the same as you,  
That's entertaining us very much!

(<http://lyricstranslate.com/en/mi-smo-djeca-vesela-were-cheerful-children.html#ixzz519mwSSZ9>)

Although the poem has less text, it is more interesting, because it includes an element of improvisation; "Marica" is an elected child who demonstrates a certain rhythmic action in his/her own choice in the first verse, so that the whole group repeats it in the second verse. The song repeats as many times as "Marica" has new ideas for the rhythmic action of the body. Any repeat of the song can include selecting a new "Marica" or one person can be "Marica" as long as they have new ideas. This rhyme can be performed to eternity; the only limiting factor is pupils' imagination and their level of concentration.

There are also clapping games, traditional rhythmic games that do not include lyrics. Clapping games can also be very helpful in everyday teaching in various forms. As Popović, Popović and Bogut suggest:

“A very simple rhythmic game, we can call it "Memory" can be achieved with a simple ostinato rhythm. The teacher teaches students a simple persistent rhythm using their hands, fingers and legs, then the first learner performs it in a slightly different way. Another student suggests another way to perform the same rhythm, then the whole group performs first and immediately afterwards another way. Depending on the age of the student, it is possible to perform many different rhythms this way. This game is great for practicing coordination, concentration and memory. Students can also be motivated if we add a competitive element - we can divide them into groups and assign points for accurately repeating as many patterns of rhythm as they can. Another example of a rhythmic game that does not include text can be called "Conductor". After the teacher has taught the class several different rhythmic constants that can function simultaneously (it is not necessary to have many, from the author's experience it is best to teach students three complementary rhythmic patterns), the class is divided into groups and each group assigns one of the learned rhythms. Choose a "conductor" who manages the common performance of the learned rhythmic patterns by showing to particular groups to start or stop playing. Another variant of performing complementary rhythms is performance in canon - so each group performs all the rhythms in the same order but begins at a different time. For rhythmic games we can also use rhythmic patterns from popular or folk songs, for example a characteristic rhythm from the song "We will rock you". The game we can call "Composer" is based on the use of only one of these characteristic rhythmic patterns. Pupils are divided into groups and their task is to understand the different ways in which they will perform the same rhythm (whether rhythm is performed by applauding, puckering, kicking the floor, patting on the wing, and the like).” (Popović, Popović and Bogut, 2017, p. 678).

### *3.2 Nursery rhymes and body percussion*

Nursery rhymes and various music games exist in traditions of almost every culture. Nurturing traditional games and music activities would also help to preserve national heritage, including the national heritage of minorities, which is a permanent goal of all cultural and educational institutions in every country. Nursery rhymes are taught from a very early age, and often include body percussion elements. The more complex these elements get; the rhyme is more difficult to learn. Our tradition and folklore abounds in nursery rhymes that include body percussion elements: “A be ce de”, “Bija baja buf”, “Điha, điha”, “Eci peci pec”, “En ten tini”, “I’šo medo u dućan”, “Jež”, “Kiša pada”, “Nitko nije kriv”, “Pliva patka”, “Ringe ringe raja”... Those nursery rhymes are taught to children before they start school, and we can use those as a starting point in the first few years of elementary school: we simply add more complex rhythm patterns, or even a melody to them. According to Milinović, “Nursery rhymes primarily develop a sense of rhythm, but in addition, they also develop music memory and correct intonation. Nursery rhymes can be divided to spoken and sung ones. While spoken rhyme is performed at a freely chosen pitch and at the same tone, the sung rhyme consists of at least two tones at exact pitch. This kind of rhyme, besides the rhythm, also develops a sense of intonation” (Milinović, 2015). This course of the teaching process enables students to develop new competencies in fundamental didactic principle of learning from simple to complex, lighter to harder, closer to further, known to unknown, concrete to abstract (Bognar and Matijević, 2005).

### *3.3 Learning through games and body percussion*

"Games are one of the basic activities of children entering the world and discovering it, which, among other things, provides a sense of acceptance, love and warmth, as well as enjoying playing, moving and pronouncing, in communicating with others” (Peti-Stantić and Velički, 2008, p. 11). Contemporary teaching tendencies recommend the frequent use of games in learning processes. According to Aladrović Slovaček "learning by the play allows for better student concentration, greater efficiency and success in trusted tasks" (2013, p. 21). There are numerous music games that can be utilized for these purposes. It is not accidental that many of them are related to rhythm, as rhythm is



considered to be the ground of any music activity. It is the first component in music that students develop, and that is why it is suitable to do rhythm activities from an early age, even in kindergarten (Šulentić Begić and Bubalo, 2014). When creating music rhythmic activities for children it is useful to note that rhythmic games are well accepted by students at a younger age, while older students enjoy games with listening to music as Šulentić Begić (2016) has noted in her paper. On the other hand, Svalina (2015) noted that musical activity done mostly during classes is singing and not much more. Also, today's students are enjoying other extracurricular activities like dancing more than attending choir (Šulentić Begić, Begić and Grundler, 2016), so body percussion would offer the best of both. The reason for that may lay in the fact that most classrooms are not equipped with instruments or other media that would allow students to play music. Another reason is the insufficient education of classroom teachers for the performance of music activities. For this reason, the encouragement of various musical activities in the classroom teaching of all subjects (and not just music culture) is necessary and could also help the future musical education of children. As Popović, Popović and Bogut conclude: "such a combination of different types of activity has positive effects, both in linking and learning non-musical content, as well as in a positive attitude towards music itself" (2017, p. 680). With a positive attitude toward music, students, besides the aforementioned benefits, would also have a richer cultural life. In many, especially rural areas, musical talent in children passes unnoticed; detecting talented students at an earlier age would be greatly facilitated if there would be more musical activities in class.

#### 4. Conclusions

Music professionals that engage in education in general schooling for the past few years have been driven into a corner: their curricula have been drastically reduced, and the curriculum is unsuitable for today's students. This results in students' total disinterest in music subjects, as they do not understand their purpose. While in Croatia music teachers have to justify their mere existence in every way, art and music are recognized as a very effective means of education in the world and are increasingly getting involved in teaching processes. Class teachers in primary school are the first teachers with whom students meet - they lay the foundation of future education for each child. With greater engagement in art and music fields, class teachers would create more successful students. Literature and manuals that would help them exist, but there is no positive incentive from the system. Positive influences of music and music education on children and people in general were discussed, as well. From the cited literature, it is evident that this is a very popular topic in psychology and neurology.

Apart from compilation of existing knowledge, this paper also discussed the teaching process. The proposed activity that matches the modern demands of education and is not difficult to include in the teaching process is body percussion - a simple and easy-to-use music technique that uses the body as an instrument. The goal of the authors is to point out the small steps that are attainable in our rigid education system. Existing literature dealing with this subject mainly looks at body percussion as a method of music therapy, not as a means of education, but body percussion is increasingly used in teaching (e.g. in Finland and Germany as mentioned before), so there is an increase in the number of works of this kind as well as empirical research that are expected to confirm the theses outlined in this paper. That way, music therapy will no longer be reserved for students with learning and other difficulties, but available for all of them.

Though body percussion may seem like "reinventing the wheel", because the various games and activities of such a type in our tradition exist from the very outset, by a proper methodical approach this activity could become a very successful means of education and not just a reminiscence of the activity that our grandmothers used to spend leisure time in their youth.

In addition to the aforementioned advantages for the students, the care of some of the games and music activities from tradition would also help to preserve national heritage, including the national heritage of the minorities, which is a permanent goal of all cultural and educational institutions in every country.

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