IMPROVING THE BALANCE IN CHILDREN OF 6-7 YEARS IN PHYSICAL EDUCATION LESSON THROUGH MUSIC MOVEMENT GAMES

PhD Student Assistant Andreea – Gabriela Lazăr[1,2]
[1]„Ștefan cel Mare" University Suceava
[2]„Ștefan cel Mare" Secondary School of Putna

Keywords: *static balance, dynamic balance, improvement, movement games, children, physical education and sports lessons*

Abstract

In this research I started from the premise that music combined with different movements of the body or segments brings beneficial effects to children in the physical, mental and cognitive plane. Close collaboration between psychic and physical which involves the development of musical movement games can bring substantial contributions to child psychomotricity components. I considered the use of musical movement games in the case of children aged 6-7 years (the independent variable) may lead to a much faster increase of balance values compared to children in the control group. The aim of this research was to emphasize that balance can develop early. In this sense, we have introduced in the physical education and sports lessons a series of movement games made on music, to engage the active participation of the children and to contribute to the development of all forms of balance (static, dynamic and equilibrium of objects). The experiment was carried out on 14 children from the Gura Putnei Secondary School, aged between 6 and 7 years old. The control group consisted of 16 children from Secondary School "Stefan cel Mare" Putna. Within these schools I have been working as a teacher of physical education and sports, so I have been able to closely follow the evolution of children in both groups.

Introduction

After most of the authors (Epuran, M., (2005,p.369) Picq, L., Vayer, P., (1968,p.20), sturdy, A., (2015,p.11), Albu C-tin.,et al., (2006, pp.16-35)), balance is a component of psychomotricity along with kinesthetic sensitivity, segmental coordination, eye - hand coordination, eye - to - foot coordination, general coordination, agility, precision of movements, laterality, body schema, ideomotricity

Balance is a state in which opposing forces of postural reflexes and gravity are counteracted in order to ensure the projection of the center of gravity of the body within the support polygon, both in static and dynamic conditions. In orthostatism we are in equilibrium as long as the body weight vector falls inside the support surface; we are stable as long as the musculoskeletal system can accommodate the equilibrium disturbances and bring the body back to the equilibrium position (through posture reflexes). (Farago, M., Pop, S., 2008, pp.171-173).

Balance is a state of rest of the body, which is subjected to the action of forces that cancel between them (Moţet, D., 2009a, p.280). Voinea, A., (2015,p.38) defines balance as "the ability to maintain a controlled position of the body or an object by means of compensatory movements." The forms of balance are:

- Static balance
- Dynamic balance
- Balance of the objects

Grosu, E., (2009, p.88) defines static equilibrium as the ability to maintain a stationary position, and dynamic balance as the ability to maintain balance during motion. According to Albu, Ctin., (2006, pp.19-20), static equilibrium and postural control are obtained by the contraction of the trunk muscles in relation to head position and coordinated intervention of the vestibular system, proprioceptive sensitivity, visual analyzer and extrapyramidal system. Dynamic balance is extremely important for the development of general dynamic coordination.

An important role in maintaining the vertical position (static balance) it has the vestibular system, the deep sensitivity, the cerebellar system and the extrapiramidal system. Any injury to them produces balance disorders. Dynamic balance disorders are caused by pyramidal, extrapyramidal, vestibular, proprioceptive or osteomuscular disorders. All this leads to a deficient movement (Voinea, A., 2015, p. 72).

After Albu, Ctin (2006,p.38) the static and dynamic balance brings problems related to deficiencies in the podal support and the level of tonic-postural control. Regarding static balance disorders, to maintain the balance, a larger base of support is needed, In dynamic balance disorders, there are situations where walking is typically slow, cumbersome, rigid, etc., in relation to the specific condition.

Balancing disorders can also have psychological causes when the child has no confidence in his or her possibilities. Mistrust is clinically

manifested by imbalances occurring during walking or in the orthostatic position

Material and methods

The premises of the research: In this research I started from the premise that music combined with different movements of the body or segments brings beneficial effects to children in the physical, mental and cognitive plane. Close collaboration between psychic and physical which involves the development of musical movement games can bring substantial contributions to child psychomotricity components.

Hypotheses of the research: We consider the use of musical movement games in the case of children aged 6-7 years (independent variable) may lead to a much faster increase of balance values compared to children in the control group.

The purpose of the research: The aim of the research is to emphasize that balance can develop early. In this sense, we have introduced in the physical education and sports lessons, deployed inside, a series of movement games made on music, to engage the active participation of the children and to contribute to the development of all forms of balance (static, dynamic and equilibrium of objects).

Subjects of research: The experiment was carried out on 14 children from the Gura Putnei Secondary School, aged between 6 and 7 years old. The control group consisted of 16 children from Secondary School "Stefan cel Mare" Putna. Within these schools I have been working as a teacher of physical education and sports, so I have been able to closely follow the evolution of children in both groups in terms of static and dynamic balance.

Research period: The experiment was conducted over a period of 4 months (January 2018 - May 2018). During this time, physical education lessons took place in the classroom during the cold season, because "Gura Putnei" Gymnasium School does not have a gym.

The research methods: method of study of specialized literature, observation method, experiment method, methods of collecting, processing and interpretation of data.

Tests used in research: For the evaluation of the static and dynamic balance i used the Bruininks - Oseretsky balance evaluation tests presented by Manole V., and Manole, L., (2009, pp.144-146):

- Sitting in one leg on the floor

- Sitting in one leg on a balance bar
- Sitting in one leg on a balance bar with closed eyes
- Walking on a line drawn on the ground
- Walking on a balance bar

The means used in research: Throughout the physical education lessons we introduced various musical motion games. They aimed to develop the static and dynamic balance of small children. As examples of means we used: walking on the colorful snake in the rhythm given by the song, the game "Balance in pairs", "Balance of the group", "You are a geometric figure!", "Stork watches us!" "Crocodiles and frogs", "Jump from circle in the sky" etc.

Results and discution

After we introduced the games into the physical education lessons of the children in the experiment group, the differences in the equilibrium values of the experiment group compared to those of the control group pupils were as follows:

Table 1 – Experimental group

Statistical indicators	*Sitting in one leg on the floor*		*Sitting in one leg on a balance bar*		*Sitting in one leg on a balance bar with closed eyes*		*Walking on a line drawn on the ground*		*Walking on a balance bar*	
	TI	*TF*	*TI*	*TF*	*TI*	*TF*	*TI*	*TF*	*TI*	*TF*
X	*7.61*	*9.13*	*6.74*	*8.32*	*5.73*	*7.11*	*5.36*	*6*	*4.36*	*5.63*
S	*1.10*	*0.62*	*1.05*	*0.82*	*0.78*	*1.50*	*0.64*	*0*	*1.12*	*0.64*
CV	*0.14*	*0.06*	*0.15*	*0.09*	*0.13*	*0.21*	*0.11*	*0*	*0.28*	*0.11*
Median	*7.77*	*8.97*	*6.8*	*8.53*	*6*	*7.64*	*5*	*6*	*5*	*6*
Mo	*7.68*	*9.01*	*6.7*	*8*	*6*	*8*	*5*	*6*	*5*	*6*
Min	*6.11*	*8.04*	*4.54*	*6.54*	*4.1*	*4.32*	*4*	*6*	*2*	*4*
Max	*9.55*	*10*	*8.44*	*9.66*	*7.1*	*8.97*	*6*	*6*	*6*	*6*

Tabel 2 – Control group

Statistical indicators	*Sitting in one leg on the floor*		*Sitting in one leg on a balance bar*		*Sitting in one leg on a balance bar with closed eyes*		*Walking on a line drawn on the ground*		*Walking on a balance bar*	
	TI	*TF*	*TI*	*TF*	*TI*	*TF*	*TI*	*TF*	*TI*	*TF*

X	*7.89*	*8.03*	*7.11*	*8.01*	*4.81*	*4.52*	*5.45*	*5.63*	*4.27*	*4.81*
S	*1.07*	*1.11*	*1.20*	*0.77*	*0.80*	*0.59*	*0.65*	*0.48*	*0.96*	*1.02*
CV	*0.13*	*0.13*	*0.16*	*0.09*	*0.16*	*0.13*	*0.12*	*0.08*	*0.22*	*0.21*
Median	*8*	*8.04*	*7*	*8*	*4.87*	*4.37*	*6*	*6*	*4*	*5*
Mo	*8*	*7*	*7*	*8*	*5*	*5*	*6*	*6*	*5*	*6*
Min	*6.35*	*6.55*	*5.4*	*7*	*3.54*	*3.8*	*4*	*5*	*3*	*3*
Max	*9.89*	*9.79*	*9.12*	*9.81*	*6.66*	*6.03*	*6*	*6*	*6*	*6*

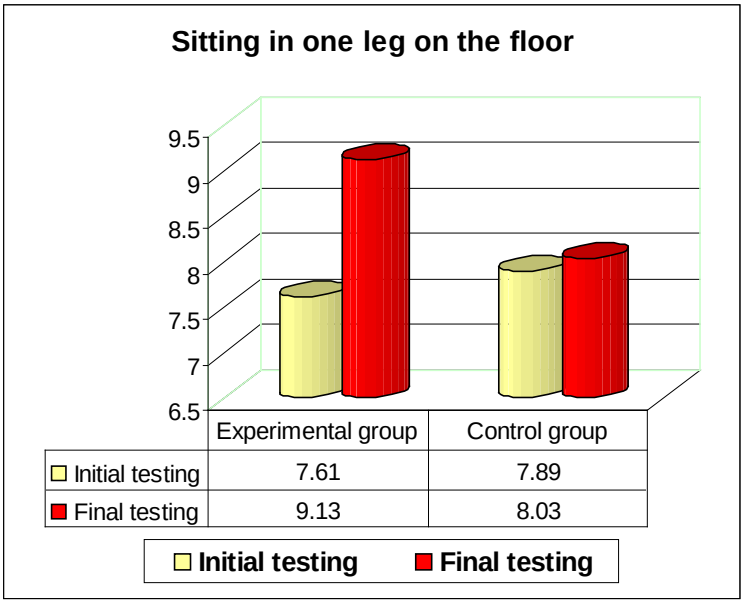

Figure 1. **The values of the two groups at the first test**

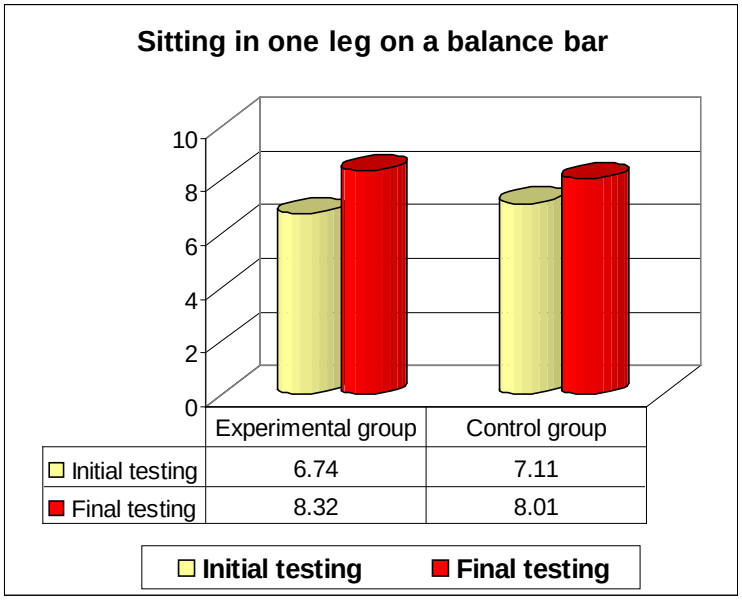

Figure 2. **The values of the two groups at the second test**

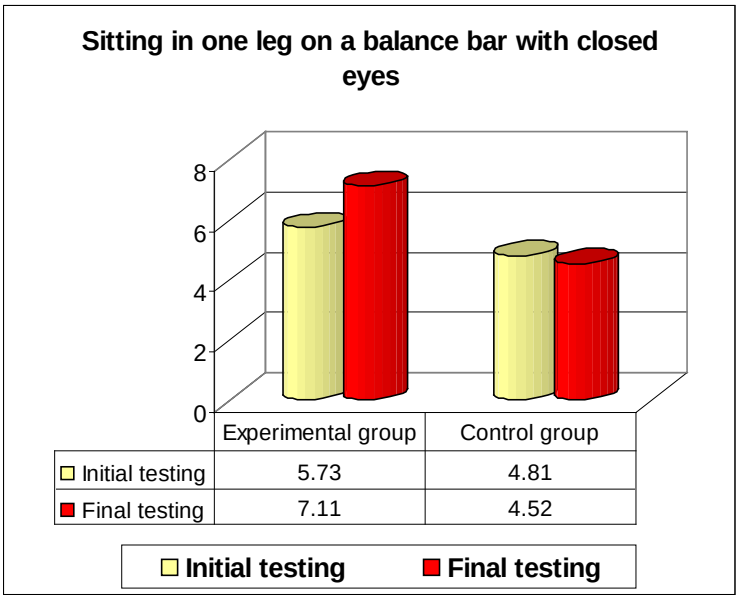

Figure 3. **The values of the two groups at the third test**

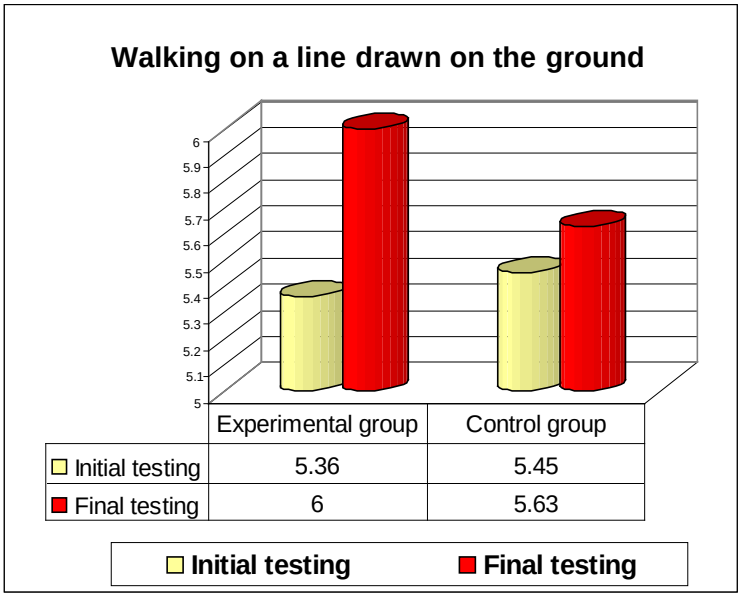

Figure 4. **The values of the two groups at the fourth test**

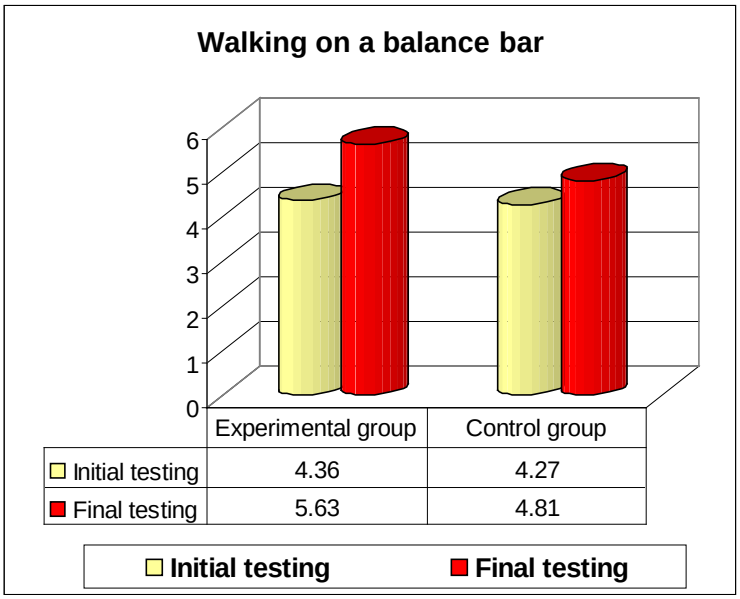

Figure 5. **The values of the two groups at the fifth test**

Conclusions

Musical movement games can be used by physical education teachers to small children for the purpose of improvement the teacher-student relationship and to encourage children to participate in lessons. Music has different effects on the human being. Many authors (Sbenghe, T., 2002, p.506, Popovici D., V., 2005, Pritcan, V., 2008, p.128 etc.) claim that music together with body movements brings many beneficial effects. Physically, music and movement cause: relaxation, lowering of the muscular tone, promoting rhythmic movements of the body or segments, increasing the tone and effort resistance, improving all the components of psychomotricity.

Psychologically, some of the most important effects of music and movements of the body are: influencing the individual's mood, determining tonic states, increasing intellectual capacity, improving concentration, developing psychic functions and processes, etc. Music develops focused and distributed attention when the teacher asks children to make some moves (act or motor action) throughout the song.

All these influences of music and movement have also led to the improvement of psychomotricity components (static balance, dynamic balance and balance of objects) of children aged 6-7. These students have obviously improved their values in all five applied tests by participating in various musical motion games during their physical education lessons.

Bibliography

1 Albu,C., Albu, A., Vlad, T.,L., Iacob, I., 2006, *Psihomotricitatea: metodologia educării și reeducării psihomotrice,* Editura Institutul European, Iași
2 Cordun, M., 2009, *Kinantropometrie,* Editura PRESS, București
3 Farago, M., Pop, S., 2008, *Metode și tehnici de evaluare în kinetoterapie, suport de curs*,Editura Universității din Oradea
4 Grosu, E., 2009, *Psihomotricitate – suport de curs,* Editura Universitatea Babeș - Bolyai, Cluj - Napoca
5 Lazăr, A., G., 2018, *Elemente de terapie ocupațională – aplicații practice*, Editura Universității „Șrefan cel Mare" Suceava
6 Horghidan, V., 2000, *Problematica psihomotricității,* Editura Globus, București
7 Manole V., Manole, L., 2009, *Evaluare motrică și funcțională în kinetoterapie*, Editura Pim, Iași
8 Moțet, D., 2009, *Enciclopedia de kinetoterapie, Vol.1*, Editura Semne, București

9 Păunescu, M., 2006, *Conceptul de psihomotricitate*, Revista Discobolul, Nr. 5, ANEFS
10 Niculescu, I.,I., 2009, *Evaluare în educația motrică*, Editura Universitaria, Craiova
11 Popovici, D.,V., 2005, *Terapie ocupațională pentru persoane cu deficiențe*, Editura Muntenia, Constanța
12 Pritcan V., Boderscova, L., Chihai, J., 2008, *Terapie ocupațională și reabilitare psihosocială,* Bălți
13 Sbenghe, T., 2002, *Kinesiologie – Stiința mișcării*, Editura Medicală, București
14 Vlad, E., 1999, *Evaluarea în actul educațional terapeutic,* Editura Prohumanitate, București

ÎMBUNĂTĂȚIREA ECHILIBRULUI LA COPIII DE 6-7 ANI ÎN LECȚIA DE EDUCAȚIE FIZICĂ PRIN INTERMEDIUL JOCURILOR DE MIȘCARE MUZICALE

As. univ. drd. Andreea – Gabriela Lazăr[1,2]
[1]Universitatea „Ștefan cel Mare" din Suceava
[2]Școala Gimnazială „Ștefan cel Mare" Putna

Cuvinte cheie: *echilibru static, echilibru dinamic, îmbunătățire, jocuri de mișcare, elevi, lecția de educație fizică și sport*

Rezumat

În această cercetare am plecat de la premisa că muzica combinată cu diferite sarcini motrice de realizat aduce efecte benefice în planul fizic, psihic și cognitiv al copiilor. Strânsa colaborare dintre psihic și fizic pe care o implică desfășurarea jocurilor muzicale de mișcare poate aduce contribuții substanțiale asupra componentelor psihomotricității copiilor. Am *considerăm că folosirea jocurilor muzicale de mișcare la copiii cu vârste cuprinse între 6-7 ani (variabila independentă) poate duce la o creștere mult mai rapidă a valorilor echilibrului, comparativ cu cele ale copiilor din grupul de control.* Scopul a fost de a scoate în evidență faptul că echilibrul se poate dezvolta timpuriu. În acest sens, am introdus în lecțiile de educație fizică desfășurate în interior, o serie de jocuri de mișcare pe muzică care să angreneze participarea activă a copiilor și să contribuie la dezvoltarea tuturor formelor echilibrului. *Experimentul s-a desfășurat pe un număr*

de 14 elevi ai Şcolii Gimnaziale Gura Putnei, cu vârste cuprinse între 6 – 7 ani. Grupa de control a fost constituită dintr-un număr de 16 elevi de aceeaşi vârstă, elevi ai Şcolii Gimnaziale „Ştefan cel Mare" Putna. În cadrul acestor şcoli eu îmi desfăşor activitatea ca profesor de educaţie fizică, astfel că am putut urmări îndeaproape diferenţele de evoluţie.