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THE INFLUENCE OF DANCING AND GAME CONTENTS ON PRESCHOOLERS' MOTOR ENGAGEMENT

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Abstract

The goal of this study was to examine the influence of dancing and game contents on preschoolers' motor engagement in each phase, as well as total engagement in directed motor activities. The study was realized in the first term of 2014/2015 school year. 12 activities with dancing contents and 12 activities with moving games were monitored. The duration of directed motor activity phases was as follows: the first A phase (introductory) – five minutes, the first B phase (preparatory) – five minutes, the second phase (main) – fifteen minutes and the third phase (final) – five minutes. The time of the activity (engagement) was measured by random choice of one of the children, who was monitored during the directed activity. The observed child did not know that he/she was an object of measurement. Data processing included descriptive statistics and t-test for small independent samples. The parameters of descriptive statistics indicate longer engagement of children in the first A phase, the third phase and total engagement with dancing contents. Game contents influenced higher engagement in the first B phase and the second phase. Game contents influenced statistically significant difference in relation to dancing contents in the third phase. The total engagement with the dancing contents was 725 seconds, with game contents 707 seconds. The t-test does not indicate statistically significant difference between dancing and game contents in terms of preschoolers' total engagement. The results indicate that the activities with dancing and game contents are very useful in working with preschoolers.

Keywords: dance, game, engagement, directed motor activity, preschoolers

Introduction

Preschool education is the first level of basic education in educational system and it is necessary to make it available to all children. For preschoolers pedagogical work in educational institutions (preschools) is planned and realized depending on preschoolers' age.

The basis of the programme of preschool education for children aged three to seven which starts from a child as a physical, noetic, social and affective human being that is active in the process of upbringing, was established in 1996, and started in 1997/1998 school year. As the basis of the programme the unique and whole concept was worked out in two models – model A and model B.

Buncic (2005) compared the effects of physical education, realized in experimental groups according to the model A and model B, for three years and the effects of physical education in control group which was not included in institutional physical education programme before experimental treatment. The best effects in the development of general motor abilities for children were for children for whom the physical education was realized by the model A.

Physical activity represents one of the most important factors for proper growth and development of a young organism. Physical education takes important place between determined activities, which is organized through different forms of work, for example: directed activities, morning exercises, picnics, walks in nature, free activities etc. Physical education as planned and creative activity with clearly defined goals starts in institutional education of the Republic of Serbia with preschool education, and it ends with secondary education. The interest for the effects of physical education is significant for the profession of the tutor because mostly women do this job in our country.

There is an attitude in EU countries that well trained teachers who work in appropriate (fair) conditions, the most important precondition of high quality education. Preschool education is a valuable investment in future. Enough assets must be supplied in the education budget. The states have to make an effort in order to secure equality and work with all children especially for those in inadequate surroundings and children with special needs.

Most cited things about the problem of weakness of physical education are the following: insufficiently organized and planned work with preschoolers, smaller possibility of educators to realize complex tasks of physical education and uneven and very often insufficient material conditions of preschools for the realization of physical education.

Physical activity of youngsters is not at the satisfying level by its quantity and even less by intensity. The situation is especially alarming in urban areas. Physical activity of preschoolers is important because of integral development aspect, biological and health aspect and educational aspect (Djordjic, 2002).

Inefficiency of physical education is primarily manifested in weak influence on transformation of motor abilities, because of the small density of exercising, i.e., short active time of exercising (Markovic and Ignjatovic, 2015). The research indicates that boys are more active than girls (Hinkley et al., 2007). Bigger engagement is seen in primary school age (Markovic and Ignjatovic, 2015) and secondary school age, as well as higher sport technical knowledge (Sekeljic et al., 2013).

Apart from games which represent basic means in work with preschoolers, dancing activities are also applied (theme dancing, dancing with music, Serbian folk dances, dances of other peoples and disco dance).

Dancing themes are always with music. Music has positive effects and it influences psychologically during hard training (Mohammadzadeh et al., 2008). Positive effects of exercising with music on maximal consumption of oxygen and variables of general coordination and coordination in rhythm indicate practical application of exercising with music with the goal of proper dosage and realization of the aim and task of physical education (Alpert et al., 1990; Mandaric, 2001; Stanisic et al., 2008) as a significant improvements in strength, flexibility and balance (Kostic et al., 2002).

The idea for this work came from the research of Jankovic (2013), in which it was stated that children are motorically engaged 17,07 minutes during activity Markovic and Ignjatovic (2015) in which for certain boys the engagement was higher than 50% of absolute time and it was 15.26 minutes.

This research had an aim to research the influence of dancing and game contents on motor engagement of preschoolers during each phase, as well as the total engagement on directed motor activities.

Methods

This research was realized in preschool “Decja Radost” in Svilajnac in the first term of 2014/2015 school year. In this institution preschool age children are included in preschool education with the programme of half day and whole day stay, according to model A (Markovic and Sekeljic, 2008). In order to determine the influence of different contents on motor engagement of children in phases and total engagement 12 activities with dancing and contents and 12 activities with game contents were monitored.

The time of the activity (engagement) was measured by random choice of one of the children and its monitoring by the measurer during directed activity. In the processing of data apart from descriptive statistics, t-test was applied for small independent samples. Certain phases of directed motor activities are structured with the following absolute duration: the first A phase

(introductory) – five minutes, the first B phase (preparatory) – five minutes, the second phase (main) – fifteen minutes and the third phase (final) – five minutes.

Results

By the insight in the Table 1 we can see that the values of duration of motor engagement by phases and total engagement are in relatively possible and expected limits.

Table 1. Descriptive parameters for certain phases of directed activities
in relation to dancing contents

Phases	in	Max	Mean	Sd	Skewness	Kurtosis
Introductory (I A phase)	69.00	213.00	156.75	48.60	-.480	-1.190
Preparatory (I B phase)	102.00	201.00	137.91	29.37	1.203	1.154
Main phase	264.00	480.00	355.75	60.71	.543	.804
Final phase	24.00	135.00	74.41	38.18	.162	-1.434
Total motor engagement	605.00	892.00	724.83	100.12	.488	-1.181

For the first A phase (introductory) active time of exercising with dancing contents is 156.75 seconds, and with game contents it is 123.58 seconds. The difference of 33.17 seconds is in favor of dancing contents. For the first B phase (preparatory) game contents influenced average longer motor engagement in relation to dancing contents with 17.09 seconds. In the main phase of activity, average motor engagement with dancing contents is 355.75 seconds, and with game contents 378.58 seconds. The difference of 22.83 seconds is in favor of game contents.

Table 2. Descriptive parameters for certain phases of directed activity
in relation to game contents

Phases	in	Max	Mean	Sd	Skewness	Kurtosis
Introductory (I A phase)	61.00	167.00	123.58	34.07	-.729	-.213
Preparatory (I B phase)	90.00	242.00	155.00	14.28	.436	-1.081
Main phase	279.00	484.00	376.58	62.14	.037	-.925
Final phase	26.00	81.00	49.75	18.02	.353	-.473
Total motor engagement	522.00	842.00	706.91	91.70	-.389	1.232

The difference of 24.66 seconds in final phase was acquired by dancing contents in relation to game contents. A bit longer time of total motor engagement on activities from only 17.92 seconds was achieved with dancing contents. Standard deviation with the value of 60.71 seconds for dancing and 62.14 seconds for game contents is the biggest in the main phases of the activity. The difference of minimal and maximal values is close and at dancing contents it is 216 seconds, and for game contents it is 205 seconds (Table 1 and Table 2).

All the results are normally distributed, with the value of scunis in interval from 1 to +1, except the results of B phase for dancing contents. Kurtosis is in the results for all phases, as well as for the whole motor engagement with dancing and game contents, less than three, which indicates that the results are homogeneous and that the curve is leptokurtic.

Table 3. Significance of differences of duration of motor engagement
by phases and total motor engagement in relation to contents

Phases	t	df	Sig. (2-tailed)
Introductory (I A phase)	1.936	22	.066
Preparatory (I B phase)	-1.028	22	.315
Main phase	-.910	22	.372
Final phase	2.023	22	.055
Total motor engagement	.457	22	.652

The values of t-test indicate that in the introductory first A phase of directed motor activity there is no statistically significant difference of duration of motor engagement in relation

to dancing and game contents. The achieved level of statistical significance is $p=.066$. Statistically significant difference was not stated in the preparatory phase of the activity. The level of statistical significance is $p=.315$. In the main phase the level of statistical significance is $p=.372$ indicates that there are no differences in duration of motor engagement in relation to contents. Statistically significant differences do not exist even in the final phase of directed motor activity ($p=.055$) Minimal differences in the total motor engagement of 17.92 seconds in favor of dancing contents were not sufficient for influencing statistically significant differences ($p=.652$).

Discussion

By the analysis of minimal and maximal values of dancing contents it can be seen that for minimal value of motor engagement in the first A phase in relation to absolute time of duration of the first A phase the use is only 23.0%, and for maximal value it is 71.0%. For the first B phase the difference is smaller and minimal use is 34.0%, and maximal is 67.0%. The situation is worrying by the insight in minimal percentual use of only 29.33% and maximal of 53.33% in the main phase of engagement with the dancing contents of 12.48 minutes (40.26%) and maximal engagement was 14.86 minutes (49.53%).

For dancing contents minimal values of motor engagement in the first A phase in relation to absolute time of the duration of the first A phase is only 27.00%, and for maximal value it is 55.66%. For the first B phase minimal engagement is 30.00%, and maximal 80.66%. The situation is very worrying by the insight in minimal percentual engagement of only 31.00% and maximal of 53.77% in the main phase. The smallest engagement in relation to absolute duration in the final phase, where the minimal engagement is only 8.66%, and maximal 27.00%.

The smallest motor engagement for dancing contents (24.80%) and game contents (16.58%) is in the final phase of directed activity. Insufficient engagement can be explained by not respecting of time articulation of certain phases, so that very often the main phase is connected with final phase and in this way the tasks of the final phase are not realized.

The highest motor engagement with dancing contents after the phase A (introductory is for the first phase B (preparatory), where the average time of engagement 62.08%, and maximally 76.66%. For game contents the highest motor engagement is in the first B phase (preparatory), where the average motor engagement is 51.66%. Satisfying motor engagement in the first A and the first B phase is conditioned by frontal form of work, in which children together with their educator perform natural forms of movement, and then complex exercises of forming. The thinkg that encourages is the attitude of teachers about the more complex preparation of locomotors apparatus of exercises of shaping for dancing and game contents.

Small motor engagement in the main phase of directed activity is 39.52 for dancing and 49.06 for game contents can be explained by the choice of the activity item, method, insufficient

application of methodical- organization forms, big number of children in a group, inadequate material and spatial conditions, insufficient number of equipment and theoretical and practical knowledge of the educators who perform planned activities.

Total motor engagement of 12.48 minutes (40,26%) with dancing and 11.78 minutes (39.27%) with game contents is insufficient for correct growth and development of a young organism. A small quantity of theoretical and sport technical knowledge do not lead to accepting of physical education, but influence disinterest for the contents of physical education teaching in older primary school and secondary school grades (Sekeljic et al., 2013) Mesaros Zivkov and Markov (2008) recommend the engagement of physical education teacher, as an expert consultant and in immediate work with preschoolers, and for educators organizing of seminars.

The goal of this work was to research the influence of dancing and game contents on motor engagement of preschoolers during each phase as well as the total engagement in directed motor activities. 12 activities with dancing contents and 12 activities with game contents were monitored. Descriptive indicators show that average longer active time of exercising in the first phase A, final and total motor engagement on activities with dancing contents. Dancing contents influenced longer motor engagement in the first B phase and main B phase of directed activity. The values of t-test for small independent samples indicate that small descriptive differences did not influence statistically significant differences in all phases of activities in relation to motor engagement.

The general statement indicates that in the work with preschoolers both dancing and game contents can be equally used with adequate material –spatial and teaching facilities and careful and responsible preparation of the educator for each activity.

References

Alpert, B., Field, T., Goldstein, S., & Perry, S. (1990). Aerobics enhances cardiovascular fitness and agility in preschoolers. *Health Psychol*, (9), 48–56. doi:10.1037/0278-6133.9.1.48. PMID: 2323328

, . (2005).

6-7 . [Comparative analysis of the two models of physical education organizing in preschools aimed at transformations of motor abilities of 6-7 aged preschoolers]. (). :

or i , V. (2002). *Predškolsko fizi ko vaspitanje u Vojvodini*. [Preschool physical education in Vojvodina] Vršac: Viša škola za obrazovanje vaspita a.

- Jankovi , M. (2013). Efektivno vreme rada dece na usmerenim telesnim aktivnostima u vrti u. [Effective time of work of children during directed body activities in kindergarten]. *Nastava i vaspitanje*, 62(2), 294 – 303.
- Kostic, R., Miletic, D., Jovic, D., & Uzunovic, S. (2002). The influence of dance structures on the motor abilities of preschool children. *Facta universitatis, Series Physical Education and Sport*, 1(9), 83-90. ISSN 1451 740X
- Mandacic, S. (2001). Effects of programmed exercising to music of female pupils. *Facta universitatis, Series Physical Education and Sport*, 1(8), 37-49. ISSN 1451 740X UDC 796:351.754.92
- Markovic, Z., & Ignjatovic, A. (2015). *Active time of exercising with directed activities*. In Bratic, M. (Eds), Book of Proceedings XVIII Scientific Conference „FIS COMMUNICATIONS 2015” in physical education, sport and recreation and III International Scientific Conference, Niš, Serbia, october 15-17th, 2015, (190-196), Nis: Faculty of sport and physical education. ISBN 978 86 87249 71 4
- Mohammadzadeh, H., Tartibiyani, B., & Ahmadi, A. (2008). The effects of music on the perceived exertion rate and performance of trained and untrained individuals during progressive exercise. *Facta universitatis, Series Physical Education and Sport*, 6(1), 67-74. ISSN 1451 740X UDC 351.754.92:796
- Stanisic, I., Kostic, R., Uzunovic, S., & Markovic, J. (2008). The significance of the relations between the quality of the performance of dance structures and the motor coordination skills of preschool children. *Facta universitatis, Series Physical Education and Sport*, 6(2), 125-133. ISSN 1451 740X UDC 793.3.-:053.4
- Hinkley, J., Crawford, D., Salmon, J., D Okely, A., & Hesketh, K. (2007). Preschool children and physical activity: a review of correlates. *American Journal of Preventive Medicine*.

, ., , . & , . (2013).
 . [Is physical education problem for girls]. ,
(3), 441–451.