

EFFECT OF CHILDREN'S DANCE PROGRAM "DANCE, SING, CREATE THROUGH DANCE" ON MOBILITY CAPABILITIES OF PRESCHOOL BOYS IN NIŠ

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(Original scientific paper)

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Abstracts:

Research was conducted with the aim of determining the effects of children's dance program on motor abilities of preschool male pupils. The research sample was composed of 36 boys aged 6 from the preschool groups in Niš. For the estimation of motor abilities a battery of test containing seven motor tests was applied: leg tapping on the wall forward bend, side bend touch, standing long jump, sideways steps, one leg standing, wide step front bend, and hop scotch. Basic descriptive parameters were calculated for the measured variables and for the estimation of the differences between the initial and the final measurements of the motor abilities multivariate and univariate analyses of variance MANOVA AND ANOVA were applied. On the basis of descriptive parameters, multivariate and univariate analyses of variance it was determined that there is significant difference in the applied variables for the estimation of the motor status of the boys on the initial and final measurements.

Key words: tests, measurements, effects, MANOVA

INTRODUCTION

Development and achieving certain level of mobility capabilities is the main aim of physical education of preschool children. In preschool age physical exercises have as a goal development of strength, persistence, flexibility and coordination, since general control of mobility is expressed. Basic mobility capabilities are the basis of each learning of movement tasks of certain technique, so that it may be considered the basic value in the whole area of human mobility (Kurelic and cap. 1975). In the period of development of movement from the third to the seventh, a child achieves a very good level of flexibility and handiness. In this period locomotion is improved. High percent of children of this age have coordinated movements of hands and legs when walk, run, even when follow music. Dance in preschool age have an important role in creating mobility with youngest, as well as in their complete psychophysical development. In order to actually establish the condition of basic

mobility area, one should realize certain mobility measuring, and the results would enable evaluation of the current mobility status of boys. For evaluating of mobility status there are used batteries of tests applied on certain age group.

Exercises improve handiness to the level to perform rhythmic, coordinated and graceful movements, that may rarely be observed with young children who do not practice. Through practice children are stimulated to use anthropomobility capabilities and thus are in a superior position in comparison with children who do not practice. Having in mind that preschool age is the period of intensive changes in the whole anthropologic area of a child, the aim of this research is establishing of influence of three months dancing program on changes in mobility area of a boys.

It is assumed that the experimental, three months dancing treatment may result in positive changes in certain mobility capabilities of monitored children.

Chart 1. Basic statistic parameters for evaluation of mobility capabilities of boys at the initial measuring.

	Valid N	Mean	Minimum	Maximum	Std.Dev.	Standard	Skewness	Kurtosis
MTANZ	36	13.81	8.00	18.00	2.87	0.48	-0.15	-0.87
MPZDO	36	10.36	7.00	15.00	1.57	0.26	0.44	1.16
MSUDM	36	105.36	76.00	136.00	16.85	2.81	-0.07	-0.94
MKOST	36	10.29	8.38	13.80	1.38	0.23	0.97	0.26
MSNNZ	36	6.84	2.97	10.96	2.16	0.36	0.09	-0.90
MPRRA	36	34.33	19.00	57.00	8.93	1.49	0.29	-0.18
MSKOL	36	5.69	3.22	11.77	1.91	0.32	1.31	1.87

Chart 2. Basic statistic parameters for evaluation of mobility capabilities of boys at the final measuring.

	Valid N	Mean	Minimum	Maximum	Std.Dev.	Standard	Skewness	Kurtosis
MTANZ	36	15.81	11.00	21.00	2.47	0.41	0.15	-0.44
MPZDO	36	13.03	9.00	20.00	2.22	0.37	1.17	2.08
MSUDM	36	116.11	90.00	138.00	12.13	2.02	-0.07	-0.88
MKOST	36	9.12	7.78	10.50	0.79	0.13	0.12	-0.92
MSNNZ	36	7.58	4.52	11.99	1.76	0.29	0.98	0.50
MPRRA	36	42.56	37.00	53.00	4.44	0.74	0.81	-0.33
MSKOL	36	4.02	3.20	5.81	0.55	0.09	1.02	1.84

METHODS

It is necessary to carry out the initial measuring, realize program "Dance, Sing, Create through Dance", then carry out the final measuring and establish differences between the initial and final measuring.

Sample of 36 boys of preschool age, 6 years old (+/- months) from the following school in Nis: elementary schools "Kole Rasic", "Dositej Obradovic", "Vozd Karadjordje and "Ratko Vukicevic" was used for the needs of this research. Research was realized during regular dancing classes of 30 minutes which were organized twice a week.

Within dancing program the following fields of dance were dealt with:

- folk dances, elements of artistic dance, social dance, elements of sports dance, elements of modern dance, dancing aerobic exercises and dancing games.

There was applied a battery of seven tests for evaluation of mobility capabilities with the following variables: MTANZ – tanning with legs against the wall, MPZDO – pre-bow, twist touch, MSUDM – long jump from the mark, MKOST – steps aside, MSNNZ – standing on one leg, MPRRA – pre-bow with open step, MSKOL – hopscotch. There were calculated basic descriptive parameters of measured variables, and establishing

differences between initial and final measuring was realized by Repeated Measures MANOVA. Influence on mobility capabilities was calculated by statistic analyses ANOVA/MANOVA.

RESULTS WITH DISCUSSION

Main statistic parameters for evaluation of the level of mobility capabilities were calculated. Distribution of variables were examined on the basis of coefficient of skewness and coefficient of roundness. Basic statistic parameters of applied variables of mobility capabilities for boys at initial and final measuring, are shown on Chart 1. and Chart 2.

On the basis of the value of coefficients of skewness (Skewness) at the initial measuring, it may be noticed that there is a normal distribution of results. Values of applied variables are around 0 (zero). A bit higher positive distribution is noticed in the test for evaluation of coordination in rhythm (MSKOL). As far as the coefficient of persistence is concerned, there is also a normal distribution noticed. Only in the test for evaluation of coordination in rhythm (MSKOL) one can notice a bit higher positive distribution..

On the basis of the value of coefficients of skewness (Skewness) at the final measuring, it may be noticed that there is normal distribution of results. A bit more of positive distribution is noticed

in tests for evaluation of speed of frequency of movements (MPZDO). As far as the coefficient of length is concerned, there is also normal distribution. Only in the tests for evaluation of speed of frequency of movements (MPZDO) and coordination in rhythm (MSKOL) there is noticed a leptocurvic distribution since values of curtosis (2.08 and 1.84) significantly deviate of normal.

On Chart 3 results of multi-variant analyses of

Chart 3. Multivariate analyses of applied variables with boys between the initial and final measuring

Wilks Lamlambda	F	Effect df	Error df	p
0.215	15,10	7	29	0.000

Chart 4. Univariate analyses of variants applied variables with boys between the initial and final measuring

	Mean Inicijalno	Mean Finalno	MS effect	MS error	F	p
MTANZ	13,81	15,81	72,00	3,60	20,00	0.000
MPZDO	10,36	13,03	128,00	2,77	46,19	0.000
MSUDM	105,36	116,11	2080,13	115,84	17,96	0.000
MKOST	10,29	9,12	24,56	1,14	21,57	0.000
MSNNZ	6,84	7,58	9,93	4,15	2,39	0.131
MPRRA	34,33	42,56	1216,89	34,26	35,52	0.000
MSKOL	5,69	4,02	50,20	1,79	28,06	0.000

variants of applied variables for establishing of mobility status of boys of preschool age in Nis are shown. Results of multi-variant analyses of variants, indicate that there is a significant difference between the initial and final measuring in mobility status of measuring variables ($p=0.000$). Such results indicate that the level of mobility capabilities of boys who took part in this three months dancing program is significantly raised.

On Chart 4 there are shown the results of uni-variant analyses of variables applied for establishing mobility status of preschool boys in Nis. On uni-variant level, there was noticed a statistically significant difference with all the applied variables and it is in accordance with results of MANOVA.

CONCLUSION

In today's practice of specialized activities of preschool children, different content is applied, in the form of games, elements of sports game, collective exercises and dance. All these activities contribute in a certain way to the whole anthropological status of preschool children.

When we talk about development of children through dance and dance games, influence of dance as a sport is very strong. It is noticed in practice that children who attended dance classes have better coordination of movements, orientation in space, rhythmic as well as better physical expression.

The aim of the research is establishing the influence of the three months dancing program on the changes in mobility area of boys. 36 preschool boys from Nis took part in the research. For establishing differences between the initial and final measuring of mobility capabilities, there were used multi-variant and uni-variant analyses variants and it was noticed a significant difference in applied variables for evaluation of mobility status of preschool boys.

On the basis of parameters of this research we may establish that the hypothesis is true. The results of the research may be a real basis in making curriculum for work with preschool children, for effective transformation of relevant anthropomobility dimensions, as well as an effective preparation of a child for successful start in school system and the whole growth and development.

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ЕФЕКТИ НА ДЕТСКА ТАНЧЕРСКА ПРОГРАМА “СО ИГРА, СО ПЕЕЊЕ СОЗДАВАЊЕ ТАНЦИ” ВРЗ МОТОРНИТЕ СПОСОБНОСТИ НА ДЕЦАТА ОД ПРЕДУЧИЛИШНАТА ВОЗРАСТ ВО НИШ

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(Оригинален научен труд)

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Апстракт:

Испитувањето е реализирано цел да се утврдат ефектите на детската танчерска програма врз ефектите на моторните способности кај децата од предучилишната возраст. Примерокот на испитувањето беше сочинет од 36 деца на возраст од 6 години од предучилишните групи во Ниш. За проценување на моторните способности, применета е батерија од седум моторни тестови; шатинг со нозете на под; претклон, засук-допирање; скок во далечина од место; чекори во страна; стоење на една нога; претклон во расчекор; игра “шочка” (hopscotch). На резултатите од применетите варијабли, се пресметани основните дескриптивни параметри, а за утврдување на разликите меѓу иницијалните и финалните мерења, искористена е мултиваријантната и униваријантната анализа на варијансата (МАНОВА и АНОВА). Врз основа на дескриптивните статистички параметри и ови анализи, утврдено е дека постои статистички значајна разлика меѓу иницијалните и финалните мерења на применетите варијабли за проценување на моторниот статус на децата.

Клучни зборови: тестови, мерења, ефекти, МАНОВА