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Original article

INFLUENCE OF KINETIC RHYTHM PROGRAM ON DEVELOPMENT THE FUNDAMENTAL MOVEMENTS FOR KINDERGARTEN

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Abstract

Aim. Children naturally love music! Whether it is soft and soothing or a lively tune, children feel it both physically and emotionally. Throughout the early years, children are learning to do new things with their bodies. Young children are also learning that movement can communicate messages and represent actions. The purpose of this study was to investigate the effect of kinetic rhythm program on development the fundamental movements for kindergarten.

Methods. The sample was comprised of (60) kindergarten age children [age, 5.6 ± 0.11 years; height, 122.86 ± 4.28 cm; weight, 27.13 ± 7.45 kg; (mean \pm SD)] .Who all members in kindergarten class in Cairo state. The subjects divided into three groups. The first experimental group (n= 20) participated in fundamental movement program combined with kinetic rhythm exercises. The second experimental group (n= 20) participated in fundamental movement program without kinetic rhythm exercises Three- times weekly. To eight weeks. The control group (n= 20) participated in the traditional program only. All of the participants completed the fundamental movement and kinetic rhythm skills tests.

Results. Statistical analyses showed that the improvement significantly higher in fundamental movement and kinetic rhythm skills tests for the experimental groups compared with the control group.

Conclusions. Finally, fundamental movement program combined with kinetic rhythm exercises for eight weeks resulted in an increase in fundamental movement and kinetic rhythm skills tests. These results have to be taken into account by teachers in order to better understand and application.

Keywords: kindergarten, fundamental movement, Eurhythmics.

Introduction

Kindergarten has changed radically in the last two decades. Children now spend far more time being taught and tested on literacy and math skills than they do learning through play and exploration, exercising their bodies, and using their imaginations.

Many kindergartens use highly prescriptive curricula geared to new state standards and linked to standardized tests. In an increasing number of kindergartens, teachers must follow scripts from which they may not deviate. These practices, which are not well grounded in research, violate long-established principles of child development and good teaching. It is increasingly clear that they are compromising both children's health and their long-term prospects for success in school. (Edwards, Raikes, 2002)

Children naturally love music! Whether it is soft and soothing or a lively tune, children feel it both physically and emotionally.

Throughout the early years, children are learning to do new things with their bodies. Young children are also learning that movement can communicate messages and represent actions. Young children are able to perform and

recognize pantomimed actions such as ironing, stirring, swimming, or playing the piano.

Most children usually are quite at home with movement. They begin to learn about the world by acting on objects and people, and they "think with their bodies" well before they think with words. This is why body movement is not only fun for children but also a good opportunity for them to solve problems.

Play is essential for all children's healthy development and learning across all ages, domains, and cultures. The play does the following:

- Enables children to make sense of their world
- Develops social and cultural understandings
- Allows children to express their thoughts and feelings
- Fosters flexible and divergent thinking
- Provides opportunities to meet and solve real problems
- Develops language and literacy skills and concepts (Bredekamp & Copple, 1997; Gronlund, 2001)

Kindergarten represent the initial stage of education is characterized by gentle treatment of

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childhood and directed, as they create, through good early upbringing, the child to receive the following roles to life on a sound basis.

The goal of maintaining kindergartens encroachment care and development of the child moral and mental and physical in normal conditions along the family atmosphere and in accordance with the requirements of the Islamic religion.

The goal of kindergarten to train the child on motor skills, and practice the correct habits, breeding senses and training to use it, and encourage innovative child activity, and pledged his aesthetic taste, and provide an opportunity for vitality and realize . (Derryberry, Rothbart, 1997)

The kindergarten targeted educational stage no less important than other educational stages as they stage a distinct educational and stand-alone educational philosophy and behavioral objectives and educational psychological and instruction of their own.

It is based targets kindergarten to respect the self-children and their individuality, stimulate their thinking creative independent, and encourage them to change, without fear, and care of children physically and familiarize good health habits and help them to live, work and play with others and savor the music, art and the beauty of nature. and get them used to sacrifice some of their desires in order to benefit the community.

Children need to master certain fundamental movement skills if they are to enjoy the wide range of physical activities, sports and recreational pursuits offered in our communities.

The Get Skilled: Get Active resource focuses on twelve fundamental movement skills considered to be building blocks for movement. The fundamental movement skills are:

- static balance
- sprint run
- vertical jump
- side gallop
- catch
- kick
- hop
- skip
- leap
- overarm throw

- two-hand strike
- Dodge.

Five year olds begin to display a variety of styles of play, including copying others, creative play, and making up their own games or activities. They are able to perform the following FMS:

- Run through an obstacle course avoiding objects
- Skip forward
- Maintain balance on a moveable platform, and
- Throw a ball with direction and force

The purpose of this study was to investigate the effect of kinetic rhythm program on development the fundamental movements for kindergarten

Participants

The sample was comprised of (60) kindergarten age children [age, 5.6 ± 0.11 years; height, 122.86 ± 4.28 cm; weight, 27.13 ± 7.45 kg; (mean \pm SD)] .Who all members in kindergarten class in Cairo state. The subjects divided into three groups.

The first experimental group (n= 20) participated in fundamental movement program combined with kinetic rhythm exercises. The second experimental group (n= 20) participated in fundamental movement program without kinetic rhythm exercises Three- times weekly. To eight weeks.

The control group (n= 20) participated in the traditional program only. All of the participants completed the fundamental movement and kinetic rhythm skills tests.

Statistical analysis

All statistical analyses were calculated by the SPSS statistical package. The results are reported as means and standard deviations (SD). Differences between the three groups were reported as mean difference $\pm 95\%$ confidence intervals (mean diff $\pm 95\%$ CI). ANOVA-test for samples was used to determine the differences in fundamental movement and kinetic rhythm skills parameters between the three groups. The $p < 0.05$ was considered as significant statistically.



Results

Table 1. "F" sign. Between the three groups in fundamental movements

Tests	Variance	Freedom degree	Total squares	Mean squares	F sign
Walking	Between groups	2	24.34	12.12	21.36**
	Within groups	57	32.35	0.57	
	Total	59	56.59		
Running	Between groups	2	2.52	1.26	6.71**
	Within groups	57	10.73	0.19	
	Total	59	13.25		
Hopping	Between groups	2	7.30	3.65	8.74**
	Within groups	57	23.80	0.42	
	Total	59	31.10		
Jumping	Between groups	2	22.34	11.17	8.33**
	Within groups	57	76.37	1.34	
	Total	59	98.71		
Vertical jump	Between groups	2	694.93	347.47	3.89**
	Within groups	57	5096.05	89.41	
	Total	59	5790.98		
Long jump	Between groups	2	4702.53	2351.27	5.85**
	Within groups	57	22911.20	401.95	
	Total	59	27613.73		
Static balance	Between groups	2	944.30	472.15	8.59**
	Within groups	57	3133.11	54.98	
	Total	59	4077.40		
Twisting from vertical jump	Between groups	2	22.93	11.46	9.72**
	Within groups	57	67.25	1.18	
	Total	59	90.81		

The F-test showed that

- Statistically significant differences between the post measurements in the three groups in all fundamental movements

Table 2. "LSD" sign. Between the three groups in fundamental movements

Tests	Groups	Mean	Group Means			LSD
			1	2	3	
Walking	First experimental	5.97		1.39*	1.30*	0.48
	Second experimental	7.36			0.09	
	Control	7.27				
Running	First experimental	3.78		0.21	0.58*	0.27
	Second experimental	3.99			0.37*	
	Control	4.36				
Hopping	First experimental	3.78		0.43*	0.85*	0.41
	Second experimental	4.21			0.42*	
	Control	4.63				
Jumping	First experimental	4.70		1.45*	1.04*	0.73
	Second experimental	6.15			0.41	
	Control	5.74				
Vertical jump	First experimental	49.65		2.80	8.20*	5.98
	Second experimental	46.45			5.40	
	Control	41.45				
Long jump	First experimental	103.20		18.70*	20.70*	12.68
	Second experimental	85.50			2.00	
	Control	83.50				
Static balance	First experimental	22.00		8.91*	7.81*	4.69
	Second experimental	13.09			1.10	
	Control	14.19				
Twisting from vertical jump	First experimental	6.15		1.20*	1.40*	0.69
	Second experimental	4.95			0.20	
	Control	4.75				

The LSD-test showed that

- Statistically significant differences between the post measurements in the three groups in all fundamental movements

Table 3. "F" sign. Between the three groups in movement rhythmic tests

Tests	Variance	Freedom degree	Total squares	Mean squares	F sign
Counterpoint	Between groups	2	24.33	12.12	7.85**
	Within groups	57	87.95	1.55	
	Total	59	112.18		
Shading	Between groups	2	17.50	8.75	5.70**
	Within groups	57	87.50	1.54	
	Total	59	105.00		
Speed & slow	Between groups	2	14.23	7.12	3.50**
	Within groups	57	115.95	2.03	
	Total	59	130.18		
Musical breath	Between groups	2	49.60	24.80	30.73**
	Within groups	57	46.00	0.81	
	Total	59	95.60		

The F-test showed that

- Statistically significant differences between the post measurements in the three groups in all movement rhythmic tests

Table 4. "LSD" sign. Between the three groups in movement rhythmic tests

Tests	Groups	Mean	Group Means			LSD
			1	2	3	
Counterpoint	First experimental	3.70		0.90*	1.360*	0.79
	Second experimental	2.80			0.65	
	Control	2.15				
Shading	First experimental	3.25		1.25*	1.00*	0.78
	Second experimental	2.00			0.25	
	Control	2.25				
Speed & slow	First experimental	3.45		0.85*	1.15*	0.90
	Second experimental	2.60			0.30	
	Control	2.30				
Musical breath	First experimental	4.00		1.20*	1.40*	0.57
	Second experimental	1.80			0.80*	
	Control	2.60				

The LSD-test showed that

Statistically significant differences between the post measurements in the three groups in all movement rhythmic tests

Discussion

The results of this study showed that the experimental group higher scores than the control group in Cognitive Skills. These results were revealed that Movement rhythmic Exercise effectively.

Play is how children begin to understand their world. Children develop socialization skills by playing with other children. Play helps children learn to solve problems and to develop the critical thinking skills necessary to ask questions and figure out how things work. Through these activities children continue to strengthen their language development.

The many studies showed a range of educational facts or opinions that emphasizes the importance of childhood in human life, and its

impact on the rest of the stages of life, and therefore important to take care of it and which is available from educational activities and experiences in various aspects. The stages of growth experienced by the child is an extension of each other, as demonstrated by these studies link the behavior of adults and their actions childhood experiences and returns many of the personality traits for pre-school.

A child is considered in the modern curriculum is central to all the activities they call him always to activities of self, and develop the element of experimentation and trial-and-discovery, and encourages him to play free, and rejects the principle of compulsion and coercion but rather focuses on the principle of flexibility, creativity and innovation, inclusiveness, and all this



requires the existence of educational system is based on The latest What prompted by the results of educational research in the areas of education, sports, psychology, and other fields; where kinetic Education depends on the kinetic potential of natural fungal available through the child's body and called the basic movement.

Developmental research suggests that working memory and attention control undergo rapid development during the preschool years, and have a substantial impact on children's developing "approaches to learning" and corresponding academic achievement (Blair, 2006; Diamond et al., 2007). Much of this research has focused on the role that cognitive control capacities, often referred to as executive functions, play in fostering the child's capacity for self-regulated and goal-oriented learning. As a group, executive function skills, including working memory, attention set-shifting and inhibitory control all show substantial development during the preschool years (ages 3-5). Conceptually, these skills enable children to organize their thinking and behavior with increasing flexibility, decrease their reactive responding to contextual cues and contingencies, and engage in self-regulated and rule-governed behavior (Barkley, 2001; Blair, 2006; Blair & Diamond, 2008; Gathercole et al., 2008; Stuss & Alexander, 2005). By promoting children's capacity to inhibit prepotent or impulsive responses and choose alternative responses, these cognitive control capacities enable children to regulate the emotions that motivate and inform their exploration of their physical and social worlds (Derryberry & Rothbart, 1997; Kochanska, et al. 2000). Developmental researchers have postulated that executive function skills, particularly working memory and attention control, thus facilitate school readiness and early learning by supporting behavioral self-regulatory capacities and social competence (Blair, 2002; Hughes, Ensor, 2007), and by fostering children's capacities to engage more effectively with teachers and peers in classroom learning activities (Hamre & Pianta, 2005; Ladd et al., 1999; Gathercole et al., 2008).

The SSE program has multi stepping patterns, which are organized by the complexity involved in stepping actions. Therefore, children need to remember patterns and to execute the steps quickly and correctly on the basis of their recall. This implies that SSE can improve functional fitness of the lower extremities. (Silsupadol et al., 2009)

Movement rhythmic Exercise can be useful to a wide range of people from children to the elderly. Here are just some of the feedback we've received from both beginners who have experienced SSE for the first time and experienced

practitioners who have continued the exercise for many years .

Shigematsu et al., 2008 indicated that movement rhythmic exercise is a more useful exercise program than regular walking for older adults; thus, it may serve as a new form of exercise to prevent falls.

Conclusion

The findings of this study indicated that Movement rhythmic Exercise are related to cognitive skills. Kindergarten teachers working with children need to take these factors into account when preparing for physical education class.

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