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Effect of selected exercises on dynamic skill promotion in fifth grade school girls

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ABSTRACT

The purpose of this study was to evaluate the impact of selected exercises on Dynamic Skill Promotion in Fifth Grade school girls. Research design was semi-experimental. Statistics sample were randomly selected as four experimental groups in each groups (ten patients) and a control group (ten patients). Measurement tool was Bruininks - Oseretsky (1978). Research hypothesis was shown significant difference between selected exercises and dynamic skill promotion. So, it is recommended to develop dynamic activities in the schools regulatory.

Key words: dynamic Skills, Balance, Coordination, Agility, educational promotion

INTRODUCTION

Dynamic development as one of the critical infrastructure considers human movement from the time of conception until to the dead. Dynamic skills are one of the fundamental is developed by baby born gradually. Crawling, standing, walking, throwing, receiving etc. are as basic skills early in life with the least ability to implement improvements and dynamic skills. Therefore, children who had more opportunities to practice in the early years of life could improve dynamic skill in next time [8]. Cognitive abilities - mobility is one of the most important factors in the development of the whole child and nurturing sports talent development in sport and physical education plays a big role. Cognitive abilities are required mobility for effective performance in all three domains of learning (cognitive, affective, and psychodynamic). Conceptual plans more programs- a move the school to create activities for children to do these activities, further accelerating the development of their cognitive abilities because children develop dynamic skills in the development of their cognitive abilities depends. Basic skills in preschool and primary school age to be considered because they lack the skills to progress to the next skill development problems will be followed later in life [7]. Also, cognitive programs - in addition to improving physical education programs in schools can be a useful learning experience for those pupils who have been learning difficulties. Most of these programs rely heavily on dynamic activity the program participants will eventually cause cognitive growth [3]. Education provides students physical activity with the learning and development of dynamic. These activities can include balance, coordination, agility, and noted that the selected research activities are concerned. As a condition of balance between the forces of the old balance of interactions is defined [5]. Balance, maintaining balance in the body is static and moving [10]. Sensory integration is the need for balance between childhood, adolescence and young progresses. Burton and Davis recently stated that a state of balance, not skill or ability; but rather an aspect of a particular activity that is involved in various processes. The process orientation performs the practical task [13]. The ability to run fast during which the person must turn and stop or start moving forward to [3]. Agility is the ability to change direction quickly and accurately a body [12]. The research was conducted by the researchers; the results show that motion exercises will improve agility speed (Lam et al, 2001). Also, the main role in improving the agility is to practice before the test [15] and finally the peak period of activity in progress is 13 to early 20s [10]. Coordination of sensory nerves and muscles and organs of the body comes together [3]. Coordination with the ability to use the senses, body parts are called on to perform dynamic tasks smoothly and accurately [7]. Srhoj (2002) the effect of dynamic ability in the rhythmic motion coordination is increased in women showed that rehearsal. Movement and physical activity plays an important role in efforts to increase cognitive ability. Furthermore, it is believed that maintaining an active lifestyle and moving axes, sensitivity and responsiveness increases cognitive brain because it increases blood flow and nerve tissue and experiencing positive changes [13]. Burton et al (1998) argue that the growth of muscle, emotional and moral development is closely related to dynamic skills, enabling children to their physical and cognitive development in a variety of activities that will help their company. Getman (1970), Progress for all types of dynamic patterns and learning the skills and knowledge necessary to navigate the mental development. Tests of mental development can be achieved in relation to students' cognitive learning.

Gauzi and colleagues (2011) found that children who have physical fitness training skills (agility, balance and coordination) are significantly different than the other children. . Li Qingro 2011 showed that obesity is inversely related to dynamic skills, balance and coordination. Children with Overweight and obese have lower levels of dynamic skills, balance and coordination. Children 6-11 years old in the inverse relationship between dynamic coordination (BMI) was observed in children of normal weight to obese children had lower dynamic coordination, but in early adolescence (11-14 years), dynamic coordination is lower in obese children and overweight and normal weight children, and better dynamic coordination [15]. Rotinac and others (2008) showed that dynamic proficiency of children in terms of intensity and duration were positively associated with physical activity Physical inactivity is associated with the image. Also children (BMI) higher than standard, less physical activity and dynamic skill lower than children (BMI) in the standard software. Children who do exercise and physical fitness, dynamic skills are good and they will not have difficulties in dynamic skills. Children who have problems in the development of dynamic skills usually have a low fitness level [9]. In 2008, research showed that young adults who are overweight and have a good fitness exercise, problems in adulthood, such as overweight and obesity, high blood pressure, osteoporosis and poor dynamic coordination in the activities and words are not developing dynamic skills [11]. Korombholz (2006) showed that the physical growth, dynamic performance and cognitive tasks, there is a significant positive relationship. Dawn and colleagues in 2006 showed that academic achievement was significantly related to membership in exercise, however, a higher score corresponds to the intense physical activity, especially the activity of health. Kristi and Pearce (2005) showed that body language can be used to enhance student learning and achievement Stechalhaus and Straub (2005) concluded the experimental group increased significantly in precision motion - mental behavior than the control group. Beckett's bero (2005) stated that the research in extra-curricular sports activities than any other activity improves academic (achievement) is the high school youth. Tsneg et al (2004) showed that the reactivity of both common and between the fine and gross dynamic skills between the reactivity and lack of physical activity and normal children are subtle with normal physical activity and gross dynamic skills differences. Milcos (2004) concluded that obese men compared with non-obese men have lower skill performances Ahnert and colleagues (2003) showed that with increasing age, children's cognitive and dynamic function evolves and also little correlation between mental abilities and dynamic skills of children. Alricsson and colleagues (2003) showed that training on the agility test group had a significant positive impact. Sibly and Etiner staged in 2003 showed a positive association between physical activity and mental performance of children significantly. Hey Wood (2002) believes that exercise and other environmental factors have a role in the development of dynamic skills. His maturity central nervous system only considers the development of skills and movement patterns. Van Beorden and colleagues (2002) found that 4.75 percent of third-grade students of both sexes in balancing ability were the most progress. In other words, the selected training program to increase static and dynamic balance was in the third grade students. Srhoj (2002) showed that training increased balance, agility and coordination to the test group. Balance, agility, coordination and balance between the positive correlation existed. Hatzitaki et al (2002) concluded that there is a positive correlation between the static and dynamic balance between static and dynamic balance abilities perceptual - dynamic and there is a significant positive relationship. Yang et al (2001) concluded quickly in a straight line (P <0.05) cannot be rapidly increase agility while improving agility training agility (P <0.05). The agility training can't improve the speed.

MATERIALS AND METHODS

A semi-empirical method is based on the pilot study was used to establish a relationship of cause - effect between two or more variables are used in the pilot projects.

Population: The study undertaken in the fifth grade girls are studying in the academic year 2011-2012. Karaj city has four school districts that were randomly sampled from an area between them and among all girls school (n=42) this area was selected as a primary school.

SAMPLE AND MEASURING METHODS:

The study sample was selected using multi-stage cluster Fifth grade classes were randomly selected from among the five groups of ten were replaced. Group practice dynamic skills, balance, dynamic skills training groups for agility,

coordination and dynamic skills training group were considered for the four groups of three to practice skills (balance, agility, coordination). The other group was used as control one.

Measuring instruments:

Skill test: In this test of skill Bruininks - Oseretsky skill is used to measure growth. The skill test subjects between the ages of 4 to 14 years are examined. Short form it takes 15 to 20 minutes. This test has eight sub-tests measuring dynamic skills as follows:

1 - Sprint and agility 2 - jumping in the air and clapping 3 - Throw the ball into the hands of the top 4 - draw a straight line with the top five - category cards matched with a top 6 - punctuation circle with the top 7 - stand on the balance beam 8 feet high - heel to toe walking on balance beam

Statistical analysis:

The statistical mean, standard deviation, minimum and maximum scores and inferential statistics, analysis of covariance, multiple regression and ANCOVA was used. For data analysis software SPSS version has been used in the nineteenth. The significance of this research hypotheses ($\alpha = 0.05$) is considered.

RESULTS

- Selected training is affected on dynamic skills development agility of fifth year elementary school girls.

Table 1 shows the results of tests between a dependent variable in terms of categorical variables. As can be seen on the results contained in the row for this effect is not significant. So the average range of motion, agility skills in experimental and control groups did not differ in the F (44 and 4)= 2.1, P = $0.09 > \alpha$ (0.05) Given that the dependent variable on the independent variable levels was not significantly different between groups, do not compare the two dependent variables.

Table 1. Tests the effects of group

Source of variation	The dependent variable	Sum	Df	Mean square	F	Sig
Development of dynamic skills, agility pretest		30.5	1	30.5	36.7	0.000
Factor	Development of dynamic	7	4	1.7	2.1	0.09
Error	skills, agility test	36.5	44	0.83		
Total		3233	50			

- Selected exercises on dynamic coordination skills to girl students of fifth grade.

Table 2 shows the results of tests between a dependent variable in terms of categorical variables. As can be seen on the results contained in the row for this effect is not significant.

So the average variable dynamic coordination skills in experimental and control groups did not differ in F (44 and 4) = 2.4, P= $0.06 > \alpha 0.05$ Given that the dependent variable on the independent variable levels was not significantly different between groups, do not compare the two dependent variables.

Table 2. Tests the effects of group

Source of variation	The dependent variable	Sum of squares	Df	Mean square	F	Sig
Dynamic coordination skills pretest		39.5	1	39.5	7.2	0.01
Factor	Tests of dynamic	53.7	4	13.4	2.4	0.06
Error	coordination skills	240.3	44	5.4		
Total		18008	50			

- Selected exercises on balance, dynamic skill development can impact female students in the fifth grade.

Table 3 reports the results of tests between a dependent variable in terms of categorical variables. As can be seen on the results contained in the row for this effect is not significant. So the average range of motion, balance skills in experimental and control groups did not differ in the F (4 & 44) =0.34, P=0.8> α 0.05 Given that the dependent variable on the independent variable levels was not significantly different between groups, do not compare the two dependent variables.

Table 3. Tests the effects of group

Source of variation	The dependent variable	Sum	Df	Mean-square	F	Sig
Development of dynamic skills, balance, pre-test	Development of dynamic skills and balance. After the test	3.7	1	3.7	1.2	0.2
Factor		3.9	4	0.99	0.3	0.8
Error		136.9	44	3.11		
Total		3331	50			

Table 4. Regression coefficients between cognitive skills, technical and human

Variable out of the model		Т	В
Development of dynamic skills, balance		1.6	0.23
Development of dynamic skills, agility	0.5	0.5	0.08

The regression equation with variable and constant development of dynamic skills, coordination is achieved as follows:

 $y'=16.9+0.12 x_1$

CONCLUSION AND DISCUSSION

Considering the findings that the average growth rate of dynamic skills students showed, after eight weeks of training, the selected sub-test and post-test scores on the group balance exercises that had been selected, pretest scores showed no significant differences, as well as post-test scores in five subtests coordination exercises that had been selected pretest scores showed no significant difference positive impact on growth in selected practice balance and coordination skills in the experimental group after eight weeks showed, but in agility and a combination of exercises that were done, there was not much difference, however, the statistical analysis of eight sub-test scores will be considered and the total difference in growth compared with the control group showed no dynamic skills. According to the research findings can be seen that average scores on the dynamic skills of female students who are elected to eight-week training than students who did not have the training, the difference is not shown; Along with the (2002) is consistent. Along with exercise and other environmental factors that have a role in the development of dynamic skills. His development of the central nervous system only considers the development of dynamic skills and patterns. The Rotinac and others (2008) using Broninks - Azertski research conducted dynamic proficiency in children who showed positive in terms of intensity and duration of physical activity and lack of physical activity is inversely related. However, in our study with no control group, did not work, but the children have been doing during the training exercise. Munelka haga research results (2008) and Afshe (2007) has been inconsistent. However, this study does not contradict the results of other studies, this study was conducted in the school and the school routine exercise group also had and the lack of physical activity are not only varied their activities. According to these results it can be stated that exercise can improve their dynamic skills and people are less likely to participate in sports are less mobility feature. Also age is effective in improving the skills and cognitive function with aging the movement evolves. According to the findings of other research, the development of dynamic skills and coordination with the academic progress of students A significant positive correlation is observed, which results Krombolz (2006), Christie and Piers (2006) and Afsheh (2007) is consistent. Beckett's bro (2005) stated that the research in extra-curricular sports activities than any other activity in the academic achievement of high school adolescents. Sibly and Etiner (2003) for a study to examine the relationship between physical activity and mental activity conducted on 125 children that the results showed positive correlations between physical activity and mental performance significantly. The results of the investigation, Dawn and colleagues (2006) and Khaje Landi (2006) have been inconsistent. These results stated dynamic skill coordination exercise as an important factor in causing mental activity is positive. Also Malina, Bouchard (2004) argues that although both environmental factors and genetic factors play a role in obesity, but regular physical activity is probably the most important factor in preventing obesity. According to the research in various sports programs for children and teens are useful in their physical and mental health and should be pursued aggressively as sport activities to make major changes in lifestyle and follow adult individuals are encouraged to exercise and physical activity.

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