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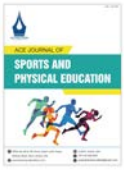

The Effect of a Field of Play According to Specialized Exercises in Daily Physical Activity in Developing Basic Motor Skills for Children in Artistic Gymnastics

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KEY WORDS:
Field
specialized exercises
physical activity
motor skills
Iraq

Abstract: The present study aims to identify the effect of the daily gymnastics and daily physical activity in developing the basic motor skills of the children at the age of 8 years. The research community included second-grade students from the elementary school in the center of the Hilla/Babil province, which number 60 male students only and the research concluded that there is an improvement of basic motor skills after 10 weeks of gymnastics technical exercises.

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INTRODUCTION

The daily activity of children is one of the basic interfaces of developed nations and a sign of their renaissance. Gymnastics is the cornerstone of all daily activities, as it helps physical, psychological and health integration because the learner participates alone when performing and it differs from other sports in terms of the multiplicity of its skills that help the learner to improve. His basic motor abilities, which include flexibility, agility, balance and compatibility, without which the learner cannot perform the basic movements as required.

The lack of daily activity for children is the main problem for societies all over the world, including Iraq, because there is a correlation between daily activity and the future health condition and the tendency towards gradual inactivity and obesity, as the lack of activity or the wrong physical activity for children can lead to a failure in the development of basic motor skills during some stage Pre-school or primary school stage which leads to failure to learn basic movements.

Any fluctuation in the basic motor skills of children will lead to their exposure to embarrassment, which causes self-problems such as feeling fear and anxiety and a decrease in self-esteem. Motor skills such as (running, horizontal jumping and sliding), control skills such as (grabbing, hitting, throwing over the head and passing) and body balance skills such as (balancing, climbing and forward rolling) and the level of children's motor skills is positively related to the levels of participation in physical activities in adulthood because they are linked long-term health condition.

Gymnastic skills help improve growth, maturity, daily activity and learn various motor skills, courage, mental abilities and physical characteristics, including weight and muscle mass. Gymnastics in learning the basic

movements of a child at the age of 8 years and then discovering how gymnastic skills are reflected in learning basic motor skills. Theoretically, there is a positive expectation for the transfer of basic motor skills to gymnastic skills according to the identical elements theory established by Thorndike and then developed by Osgood[1], which means that there is a similarity between stimulation and response to basic tasks through the positive transfer process. The importance of the current research is to know do you know skills Gymnastics improves all basic motor skills, including (motor skills, control skills and body balance skills) equally.

MATERIAL AND METHODS

Research problem: The researcher noticed that many children suffer from poor performance of basic motor skills in primary schools in Hilla center, especially students in the second stage, which in turn leads to various problems, including obesity, deterioration of health, lethargy and depression and for this he found that it is necessary to improve these skills using Various skills, including gymnastic skills and daily physical activity, which are the cornerstone of all basic movements in a child's life.

Research objectives: Preparing a program for artistic gymnastics exercises and daily physical activity according to a field of play for elementary school students at the age of 8 years.

Identifying the effect of artistic gymnastics exercises and daily physical activity according to the field of play in improving the basic motor skills of elementary school students at the age of 8 years.

Identifying the relationship between artistic gymnastics exercises, daily physical activity and basic motor skills for elementary school students at the age of 8 years.

Research hypotheses: There is a positive effect of artistic gymnastics exercises and daily physical activity in improving basic motor skills for primary school students at the age of 8 years.

There is a positive relationship between artistic gymnastics exercises, daily physical activity and basic motor skills for primary school students at the age of 8 years.

Research areas

- **The human field:** It includes the students of the second grade of the primary stage in the center of Hilla / Babil Governorate
- **Time range:** from 1/11/2016- 1/4/2017
- **Spatial field:** Al-Tabaqat Elementary School in Hilla Center / Babil Governorate

Research methodology and field procedures

Research methodology: The experimental method was used using the method of one experimental group with two pre and posttests to solve the research problem.

RESULTS

Research community and sample: The research community consisted of the students of the second grade of primary school in Al-Tabatiqat Primary School in the center of Hilla / Babil Governorate, whose number was 60 male students only. of the sample before starting the main experiment, as shown in Table 1.

Table 1 shows the values of the arithmetic mean, standard deviations and skewness coefficient values for the homogeneity of the sample. Since all skewness coefficient values were less than (-1 to +1), this indicates that the distribution was moderate and that the sample members were homogenous.

Methods, tools and devices used in the research

Means of collecting information:

- Note
- Measurement and testing
- Resolution
- The interview

Tools and devices used in the research:

- One wooden chair
- One Chinese-made electronic manual stopwatch
- Sharp electronic calculator, Japanese made
- One Chinese-made Dell laptop
- Medical scale (Chinese-made electronic) number 1
- length measuring tape (made in China)
- Gymnastics equipment such as jumping table, ground movement rug and ring

Field procedures for research

Determine the research variables: The research variables were determined based on the previous sources and the variables are[2]:

Table 1: Shows the homogeneity of the sample

Variables	Mean	STD	Median	Skewness
Age (year)	8.2	1.06	8.00	0.52
Height (cm)	120.7	6.3	120.00	0.45
Weight (kg)	31.4	3.04	31.00	0.28

- Artistic gymnastics exercises, which included the following: (Front Roll, Back Roll, Wall Handstand, Kart Wheel, Run with Jump Up, Touch Board and Landing, Flying, Walking on a Small Field, Jumping Forward on a Small Field)
- Basic motor skills, which included the following: (Throwing the ball against the wall and catching it again, running through obstacles, carrying medicine balls, straight running)
- Daily physical activities

Measurement of variables

Measurement of artistic gymnastics exercises: The eight artistic gymnastics exercises, which are among the basic exercises in gymnastics, were evaluated by 3 judges of the specialty of gymnastics () and the judges relied on five points, which are as follows:

- The performance did not get grade (1).
- Performance without technique, degree (2).
- Performance with low-grade technique (3).
- Performance with average grade technique (4).
- Performance with top notch technique (5).

Measuring basic motor skills: The Polygon test was used for the new basic motor skills that was discovered by the researcher Zuvela *et al*.[3] and it includes four motor skills that express 24 motor skills and these skills are (throwing the ball towards the wall and catching it again, running through obstacles, carrying balls Medical, straight running), the area we need to apply the test is 10×24 m with 14 cone-shaped hats and 3 obstacles with two medicine balls and one volleyball as shown in Fig. 1 and 2.

The participant stands on the starting line with a volleyball and starts throwing it towards the wall and catches it again for six times, depending on the referee's signal. After finishing, he leaves the ball and starts running by crossing the obstacles, as shown in Fig. 2. Finally he passes between the conical hats to lift and carry the first and second medicine balls and put them in a basket. Then he runs 20 meters to the specified finish line and the time taken to implement the four tests mentioned above is recorded to obtain the final result of the test.

Measuring daily physical activities: The physical activity or ineffectiveness of the participant was measured through the use of a delegated questionnaire and this questionnaire is designed to inform parents about the level of activity or inactivity of their children and consists of two parts, the first part is used to know the activity of children and consists of five questions only, which include (playing football with friends, running behind friends, movement inside the house, quarrels at home, not sleeping during the day) while the second part consists of two questions only and is used to measure the inactive state of children such as watching TV and using the iPad, the question consists of yes with a score of 1 or no with a score of 0 The total score for the five questions gives the result of the children's active level, while the total score for the two questions means the child is not active[4].

Exploratory experience: The exploratory experiment was conducted on Sunday 16/2/2016 at 10 am and lasted for a week on a sample of 15 children from the same school who were excluded from the main experiment because

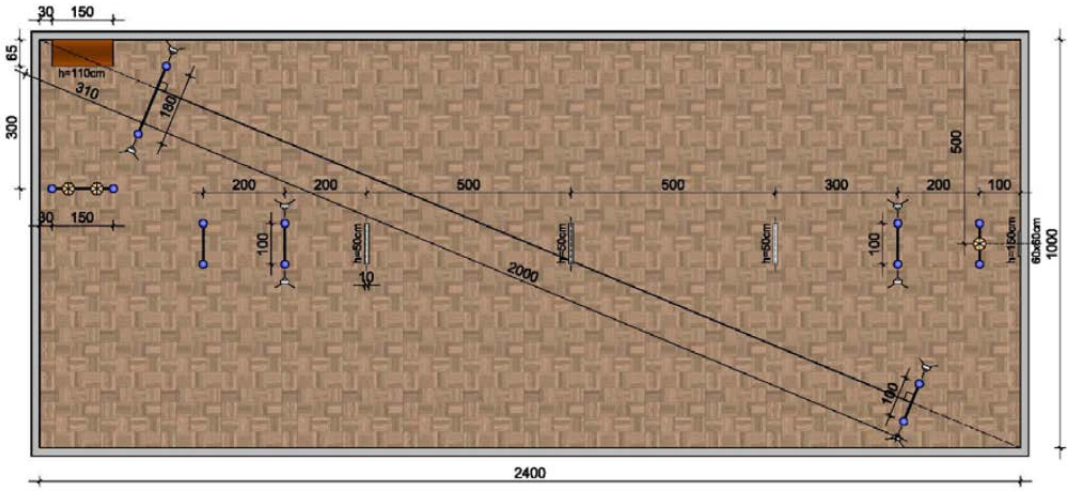

Fig. 1: Shows the dimensions of the test field

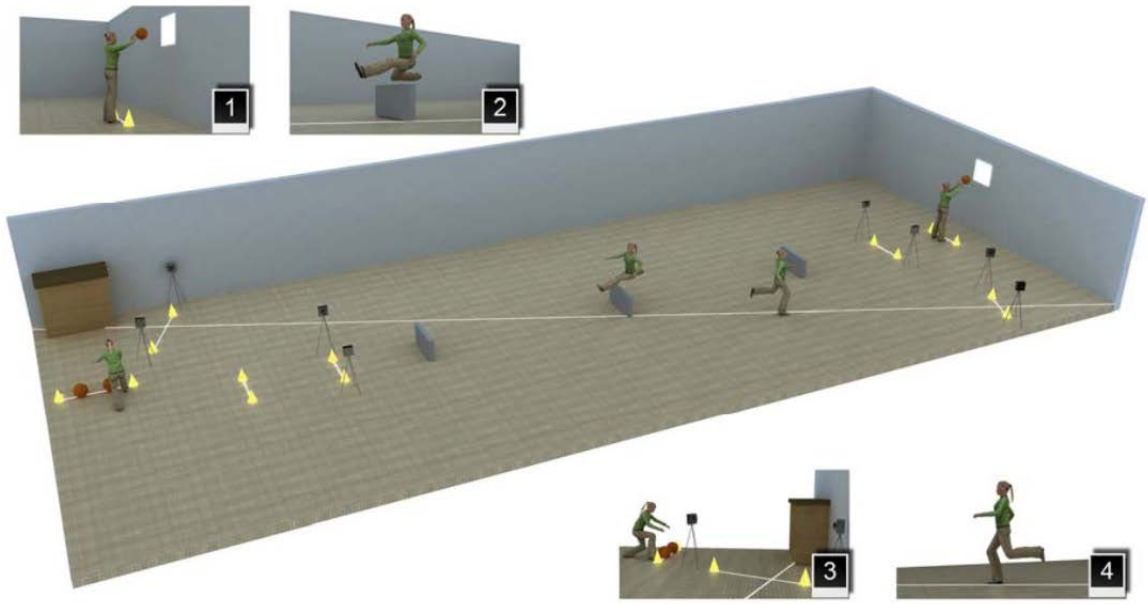

Fig. 2: Shows the stadium in 3D

they were unable to communicate and continue with the research procedures. The exploratory experiment aimed to find out.

- The ability of children to apply skills
- The validity of the tests for the sample
- The validity of the devices used in the current study
- The extent to which the research sample understands the used tests and measurements

Pre-tests: In order to determine the levels of the research sample individuals before conducting the main experiment on them, the researcher gave some general directions to the sample about the importance of the research and the tests were carried out in front of the children and emphasized the correct performance mechanism for each test. 10:00 a.m. and lasted for two days, with the following:

- **The first day:** Artistic gymnastics tests included.
- **The second day:** It included testing basic motor skills and daily physical activities.

Main curriculum: The artistic gymnastics skills program included exercises on the same skills twice a week, with a time of 30 min for each educational unit, for a period of 10 weeks.

Post-tests: The post-tests started on Tuesday 2/5/2016 at 10:00 am with the same method as the pre-tests:

- **The first day:** Artistic gymnastics tests included
- **The second day:** It included testing basic motor skills and daily physical activities

Statistical analysis: The SPSS statistical analysis program was used to obtain the results of the study.

Presentation, analysis and discussion of results

Presentation and analysis of the results of the pre and posttests of artistic gymnastics skills and basic motor skills: The tabular value of T at 29 degrees of freedom and 5% level of significance is 2.27.

It can be seen from Table 2 that all the calculated t-test values for the tests are greater than the level of the tabular t-test values and this means that there are significant differences between the pre and posttests in all the researched variables, as follows:

- **In the basic motor skills test:** The calculated T value was 3.6, which is greater than the tabular T-test value level at the level of significance 5% and degree of freedom 29 and this means that there is a significant difference between the pre and post tests
- **In the frontal rolling test:** The calculated T value was 4.1, which is greater than the tabular T-test value

level at the level of significance 5% and degree of freedom 29 and this means that there is a significant difference between the pre and post tests

- **In the back rolling test:** The calculated value of T was 4.02, which is greater than the level of the tabular T-test value at the level of significance 5% and degree of freedom 29 and this means that there is a significant difference between the pre and post tests
- **In the handstand test with props against the wall:** the calculated T value was 3.4, which is greater than the tabular T-test value level at the level of significance 5% and degree of freedom 29 and this means that there is a significant difference between the pre and post tests
- **In the cartwill test:** The calculated value of T was 3.67, which is greater than the level of the tabular T-test value at the level of significance 5% and degree of freedom 29 and this means that there is a significant difference between the pre and post tests
- **In the running test with jumping up, touching the board and landing:** The calculated value of T was 4.3, which is greater than the level of the tabular T-test value at the level of significance 5% and the degree of freedom 29 and this means that there is a significant difference between the pre and post tests
- **In the throat locomotion test:** The calculated T value was 3.8, which is greater than the tabular T-test value level at the level of significance 5% and degree of freedom 29. This means that there is a significant difference between the pre and post tests
- **In the walking test on a small field:** The calculated T value was 2.95, which is greater than the level of the tabular T-test value at the level of significance 5% and the degree of freedom 29 and this means that there is a significant difference between the pre and post tests
- **In the jump forward test on the small scale:** The calculated T value was 3.85, which is greater than the tabular T-test value level at the level of significance 5% and degree of freedom 29 and this means that there is a significant difference between the pre and post tests

Presentation and analysis of the results of the relationship between artistic gymnastics exercises and basic motor skills before and after artistic gymnastics exercises: The values of the correlation coefficient t are greater than the values of the p-value. There is a close relationship between artistic gymnastics exercises and basic motor skills before and after executing the exercises, as shown in Table 3.

While the smallest relationship between both of them was walking on a small field, as the correlation coefficient between them appeared -0.23 in the pre-test and -0.31 in the post-test and this means that there is a correlation, but weaker than the rest of the exercises, with the basic movements.

Table 2: Shows the pre and posttests for artistic gymnastics exercises and basic motor skills for the research sample

	Pre-test		Post-test			
Variables	Mean	STD	Mean	STD	t-test	Statistical Significance
Basic motor skills	31.02	3.1	28.4	2.9	3.6	Sig.
Front roll	2.1	0.54	3.6	0.65	4.1	Sig.
back roll	2.03	0.52	3.4	0.63	4.02	Sig.
Standing on the hands with props against the wall	1.29	0.43	2.3	0.53	3.4	Sig.
Kart Well	1.35	0.48	2.9	0.75	3.67	Sig.
Running with jumping up, touching the board and landing	2.06	0.54	3.7	0.68	4.3	Sig.
Throat movement	1.37	0.51	2.1	0.89	3.8	Sig.
Walk on a small field	1.24	0.45	2.26	0.85	2.95	Sig.
Jump forward on the small field	2.46	0.57	3.67	0.69	3.85	Sig.

Table 3: Shows the relationship between artistic gymnastics exercises and basic motor skills of the research sample

	Basic motor skills before exercise		Basic motor skills after exercise	
Variables	r	Tabular value	r	Tabular value
Front roll	-0.25	0.001	-0.34	0.001
Back roll	-0.35	0.001	-0.44	0.001
Standing on the hands with props against the wall	-0.42	0.001	-0.57	0.001
Kart Well	-0.37	0.001	-0.48	0.001
Running with jumping up, touching the board and landing	-0.41	0.001	-0.53	0.001
Throat movement	-0.27	0.001	-0.38	0.001
Walk on a small field	-0.23	0.001	-0.31	0.001
Jump forward on the small field	-0.33	0.001	-0.46	0.001

Table 4: Shows the relationship between physical activity and each of the artistic gymnastics exercises and basic motor skills of the research sample

	Daily physical activity		Daily physical activity	
Variables	r	Tabular value	r	Tabular value
Front roll	-0.37	0.001	0.00	0.001
Back roll	0.29	0.001	0.00	0.001
Standing on the hands with props against the wall	0.32	0.001	0.00	0.001
Kart Well	0.26	0.001	0.00	0.001
Running with jumping up, touching the board and landing	0.23	0.001	0.00	0.001
Throat movement	0.26	0.001	0.00	0.001
Walk on a small field	0.33	0.001	0.00	0.001
Jump forward on the small field	0.28	0.001	0.00	0.001

View and analyze the results of the relationship between daily physical activity and inactivity, artistic gymnastics exercises and basic motor skills before and after artistic gymnastics exercises: Correlation coefficient t values are greater than the p-value values for daily physical activity.

Table 4 showed that there is a correlation between daily physical activity, artistic gymnastics exercises and basic motor skills and at the same time, there was no correlation between daily inactivity, artistic gymnastics exercises and basic motor skills.

The previous tables showed that there was a significant difference between the results of the pre and post tests of the research sample after 8 weeks of the program, which includes artistic gymnastics exercises and daily physical activity. They are simple exercises vs. Kart Wheel which is difficult for ages 8 years.

Since the implemented program has described the same learning time for all gymnastic exercises achieved, therefore we can assume that complex skills, style and strategy of learning, fatigue, anxiety and poor attention have affected the learning process and thus the results are uneven. The low results of hanging by the throat in the post tests is a result of weak strength of the muscles of the arms and shoulders, which should be improved gradually and the duration of the program, which includes gymnastic exercises for a period of 8 weeks, is sufficient to improve basic motor skills[5].

The relationship between gymnastic exercises and basic motor skills before and after the gymnastic exercise program is significant and this means that we can improve both gymnastic skills and basic movements at the same time and that the significant improvement of basic movements during the 8-week period was shown by the T-test, as well as the significant relationship between Both the gymnastic exercises and the basic movements are only evidence of the positive transfer that took place between them, as confirmed by Osgood[5]. Jumping and landing with or without starting to run, with or without swinging, on one or both feet) It is for this reason that it is not possible to classify some skills exclusively in a particular group of basic movement skills or as your gymnastic skill, which is why artistic gymnastics is the primary sport Appropriate for young children.

The adoption of complex motor skills after mastering simple motor skills is very important in gymnastics, when the level of difficulty of the task is not compatible with the current skill level of the learner, the practice becomes useless and unsuccessful and mastering basic gymnastics skills will improve basic motor skills and thus will be a successful introduction In learning more complex skills, the repeated training of gymnastic skills will naturally lead to the improvement of basic movements and that this improvement will help in learning new skills for children[6]. In this study, the daily physical activities and inactivity of children were measured to ensure that they may affect mastery of skills. Artistic gymnastics and improving basic movements and that the significant relationship between artistic gymnastics skills and basic movements in a simple way increases children's unorganized activity and at the same time improves artistic gymnastics skills and this has been confirmed by Delas *et al*.[2].

CONCLUSIONS

There is an improvement in basic motor skills after 10 weeks of artistic gymnastics exercises. There is a positive relationship between gymnastic exercises and learning basic motor skills. The more gymnastic exercises are mastered, the more basic movements will be mastered. Structured learning and mastery of special skills can improve basic motor skills. Children's daily activities affect the improvement of gymnastic skills and basic motor skills.

RECOMMENDATIONS

Pay more attention to gymnastics exercises because they greatly help in improving basic movements. Establishing gymnastics halls in primary schools. Do more research with the rest of the ages.

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