

Program for physical education lesson with stretching exercises and jump with hope and its impact on the development of the adjectives strength and flexibility and some of the functional capacity of middle schools

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Abstract: The need to employ stretching exercises leaping within the physical education lesson is commensurate with the abilities of the students and take into account individual differences. need to focus on studying physical education and follow the best modern methods of teaching and the process of moving away from the old ways and the monotony and boredom that might be exposed to the students. The need to conduct similar studies on other samples. Program for physical education lesson with stretching exercises and jump hop and its impact on the development of the adjectives strength and flexibility and some of the functional capacity of middle schools. This research aims to identify the effect of exercise stretching and jump with hop in the development of the adjectives strength and flexibility and some of the functional capacity of middle schools have included a sample search on 24 female students from the second grade average in the city of Baghdad were selected random method was the use of the experimental method to design groups equal with measurement of tribal and posttest. The results showed improvement in the experimental group is better than the control group has recommended that researchers need to employ stretching exercises leaping within the physical education lesson is commensurate with the abilities of the students and take into account individual differences.

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Key words: stretching exercises. Adjectives strength. Flexibility. Functional capacity

1. Introduction

Physical Education, a branch of Basic Education, which derives its theories of various sciences through physical activity and structured chosen to prepare the individual to prepare physically "and socially, mentally, psychologically. Because the physical activity of the individual, including adapts to the needs of the community in which they live.

So first, researchers and specialists in the field of sports interest in the extension of required mathematical level higher in all sporting activities from required and physical skill and physical, mental, psychological and other mind and objective indicator in the preparation of training plans for her money from playing an effective role in the development of the performance of the players as upgrading and integration of these requirements.

But considering the power and flexibility of a member of physical preparation necessary and important factors determinant of achievement as a complement each other for some of the other as flexibility element of force either negatively training of the muscles on the strength of organic by contraction of the muscle of the Wise metric works on the development of flexibility isometric quite different when muscle development by defibrillation isometric (Ibrahim Hamed Feki 2001)All of **David clutch (1983), Bauer (1987) and Bauer (1990)** that

the prolongation Stretch one of the most suitable methods for the development of the ability of muscle and features from other exercises develop the capacity of muscle. As a rally in the nature of performance between the strands of muscle strength and speed together. In spite of the use of different styles and variety in the training of elemental power and flexibility, but the importance of search is determined by the need to test tools and techniques effectively in their development and lack studied the sport in schools to use such tactics effective, so we had to direct our efforts the order find means of efficient and effective to develop these qualities by employing stretching exercises and jump sentences within the physical education lesson and learn about the effect on the physical and physiological condition of the middle schools.

Follow through to study physical education in schools to note a kind of weakness in the physical performance of the students, which may reflect more or less on performance skills, and attributed the reason for this to the lack of physical education lesson to the means of modern methods in the teaching process and rely on traditional methods and lack of follow-up teachers of the development in the teaching process. As the evolution is the result of a sure all scientific efforts undertaken including field experience accumulated teaching methods as well as

"all the active contribution of science Other. So sighted researchers employ a range of exercises stretching and exercises jump hope 1 effort by the researchers to get away from the routine and boredom and monotony down" to desired goal is the development of the adjectives strength and flexibility and to identify the implications on the functional status of students also hopes researchers to capitalize on the results of this research in the calendar development programs strands of the power and flexibility of this phase Sunni important and which believes researchers they that yielded the efforts and invest energies.

of the research, and the fact that the experimental method is approaching the most honest "for many scientific problems in a practical and theory. (Allawi and salary1999)

The research community and appointed: -

Included the research community to middle schools (Grade II) and of their number (96) students were pulled out of the research sample of random and their number (24 students) and divided evenly (12) students per group of school (rockeries civil) for girls / General Directorate for Educational Baghdad first. Been regarded as Research Goals -

1 - Preparation of a program for physical education lesson with stretching exercises and jump hope my recipe for the development of strength,

flexibility, and some of the functional capacity of middle schools.

2 - Understand the impact of the program for physical education lesson with stretching exercises and jump hope in the development of the adjectives strength and flexibility and some of the functional capacity of middle schools.

Hypotheses: -

1 - There are no statistically significant differences between pre and post tests for the two sets of variables in the research in question.

2 - There are no statistically significant differences between the control and experimental groups in the post tests of the variables of the research.

Methodology: -

Used the researchers experimental method style design groups equal (tests Tribal - post tests) as being the most suitable approaches and the easiest to solve the problem students stage second division (b) of the control group and students stage second phase Division (c) are a sample of the experimental group that applied by the program prepared for the physical education lesson after being hired exercises stretching and jump hope to develop my recipe (flexibility - power) and some functional capabilities. It was a process of parity in the variables related to the subject of research, as shown in Table (1).

Table (1); Represents the pretest and posttest of the variables under study.

Variables	The control group		The experimental group		T Calculated	significance
	The mean,	standard deviation	The mean	standard deviation		
Bend the trunk forward	2,10	1,2	2,20	1,9	0,149	Random
Background flexibility of the spine	39,9	3,2	38,9	2,4	0,829	Random
speed-strength of the arms	9,32	1,2	9,83	4,30	0,380	Random
Speed-strength Foot	7,52	2,3	5,76	0,77	0,329	Random
Pulse at rest	75,32	2,31	72,55	2,61	1,232	Random
After the voltage pulse	132,2	2,5	126,42	2,54	1,265	Random
Vital capacity	3,2	0,93	3,45	0,98	0,932	Random
Age	15,2	1,1	16,2	0,92	1,932	Random
Length	152,3	0,96	159,1	0,81	1,865	Random
Weight	52,3	0,86	56,3	1,93	1,762	Random

T. tabular value below 0.05 denote the degree of freedom of 22 = 2,07It is clear from

Table (1) the lack of statistically significant differences between the two groups in the tests indicating equal groups.

Exploratory experiment: -

Researchers conducted exploratory experiment on a sample of students and their number (5) players from outside the research sample was the purpose of the experiment is exploratory: -

1. Know it takes time for the tests.
2. Extent to testers of the tests.

3. Understand the extent of the sample for testing.

4. Efficient team assistant.

5. Suitability of exercises used for the research sample.

Tribal tests: - Tribal tests were conducted by researchers at the hall on 02/23/2014 internal civil rockeries School for Girls.

Table (3) Represents the pretest and posttest of the variables under study the calculated values and tabular

Variables	The unit of measurement	Pretest		Posttest		T Calculated	T Tabulated	significance
		The mean,	standard deviation	The mean	standard deviation			
Bend the trunk forward	CM	20,2	1,9	24	0,96	5,4	2,20	Moral
Background flexibility of the spine	CM	38,9	2,4	43,5	8,13	3,89	2,20	Moral
speed-strength of the arms	Repetition	9,83	4,30	15,83	4,45	1,955	2,20	Random
Speed-strength Foot	CM	5,76	0,77	7,09	0,53	5,50	2,20	Moral
Pulse at rest	Beats a minute	72,55	2,61	80,40	2,71	3,43	2,20	Moral
After the voltage pulse	Beats a minute	126,42	2,54	142,9	2,89	6,99	2,20	Moral
Vital capacity	Mlliter	3.45	0,98	3,90	0,75	4,52	2,20	Moral

Value (c) Tabulated under the 0.05 level of significance degrees of freedom (11) = 2.20

Physical tests used for research: -

Test bending the front of the trunk: (**Abdel Meguid 2001**)

The purpose of the test: - measuring the flexibility of the spine (measuring the flexibility of the front trunk)

Tools: - a wooden box, a ruler, a tape measure divided from zero to one hundred cm installed vertically on the box so that the number 50 is parallel to the surface of the complex and the number (100) parallel to the lower edge of the seat. Index bent moves on the surface of the ruler.

Performance specifications: - stands above the laboratory bench and feet with the installation of extended toes of the feet on the edge of the seat and knees extended the laboratory to the bottom of the trunk to bend slowly to the far distance, the bottom of the instep and stability for (2-3) second.

Background test measuring flexibility of the spine: - (Hassanein and Abdel Moneim, 1997)

Tools: - a tape measure in centimeters.

Performance specifications: - from lying position tangled back lower limb installed by the lab colleague bend the torso slowly to the maximum extent and persistence able to do for 2 seconds.

Date: - the distance is measured from the bottom of the chin by a measuring tape and a tape in a vertical position and the front of the head of the laboratory during the measurement to be zero, touching the ground and recording the best attempts.

Test and the stability of the three longitudinal: - (**Hassanein and Abdel Moneim, 1997**)

The purpose of the test: - measuring the power characteristic of the two men.

Aladdat used: - a distance of at least length (21:00), a tape measure.

Performance specifications: - standing behind the starting line lab then the lab leaping forward pedicures together for three consecutive constancy and gives each laboratory two attempts to calculate the two best.

Date: - the distance is measured from the starting point, and until the last trace of the foot after the third jump (distance leaps three).

Testing drag on the horizontal bar by using body weight for a period of (10) second. (**Hassanein and Abdel Moneim, 1997**)

The purpose of the test: - measurement of speed-strength to the muscles of the arms.

Tools used: - a horizontal bar, electronic stopwatch.

Performance specifications: - standing in front of a laboratory cutting and holding the iron bar of your hands so that the palms of the hands towards the device and when you hear the signal to start the lab starts to bend and extend your arms drag on the horizontal bar so that the chin bar above the laboratory during the period of the iron (10) second.

Physiological tests: -

1. The heart rate: -

When the pulse is measured radial artery on the lateral helped directly in the region, the top of the wrist and forearm contact with the wide end of the radial bone and the measured pulse for 15 seconds and then hit output in 4.

2. Measurement of vital capacity: -
(Darwish,1988)

The goal of the test: - measure the rate of vital capacity.

Tools: Sbirumtr your device measuring vital capacity chair seating for the student.

Description of test: sit requesting and hold the device in a fist and then snapped a maximum inspiration where put her mouth on the recorder device to produce a maximum exhalation has developed fishplates Nose to take into account non-exit section of the exhaled air through the nose and then recording reading allows the student three attempts to calculate her the best for rest between attempt and another 15 seconds.

Implementation of the program:

Took implementation of the program (10) weeks, and by two lessons a week for each lesson (45) minute program included exercises for strength training using weights and exercise endurance training antenna as well as the application of exercises stretching leaping rebound and jump deep and jump hop and jump over the barriers, has been taken into account researchers principle gradient in the implementation of the program, as well as taking into account the intensity and comfort, and included all lesson three groups, each group consisting of 3 exercises take one group of 20-60 second, with a rest period between groups) two minutes (and thus take the student from the (3-7) minutes of action in the lesson and almost took the sample from 20-25 minutes of class time, a time of the main section. was performed stretching exercises at the beginning of the lesson to be nervous at fully prepared to work

(William1995). The control group has implemented the program prepared by the school, which took its implementation (10) weeks, and also by two lessons a week.

Posteriori tests: - a posteriori tests were conducted in the same conditions under which the tests were conducted by tribal and dated 04/25/2014.

Statistical methods: -

Researchers used statistical means the following according to the "bag statistical program SPSS.

- * Arithmetic mean
- * Standard deviation
- * Mediator
- * Coefficient sprains
- * T-Test for independent samples

Search results:

Researchers to calculate the significance of differences between measurements before and after the under T. As shown in the following tables:

Through the table (3) show a significant difference between pre and post tests and in favor of the post test. moral differences researchers studied

the effectiveness of education, especially the effectiveness of the exercises used, which included lengthening exercises + exercises jump rope).

To the fact that researchers have sought to contain the physical education lesson on this exercise in order to achieve a balanced development of the components of fitness (strength, flexibility) and agree this result in 1987 of the importance of stretching exercises Stone & O, Bryant with what he referred to Stone.

jump hop in the development of the power and flexibility as consistent results as search with sentiments (Abou El Ela, Allawi 2003) (the training plyometric represented exercises jump hop considered one kind of exercises that contribute to the development and improvement of some physical abilities own and that the most important muscle strength).

As well as "the use of exercises stretching at the beginning of the physical education lesson has positive effects and this is consistent with the stated(Allawi and Abu Alalamn 2003)that (susceptibility stretching and tide muscle up its borders after (5-6) Exercises prolong and exercise flexibility, muscular super-expanding range of motion of the joints working in furtherance of the good performance and successful. and indicates (James and Robert (1985) that the most important features exercises stretching it increases motor performance in the sense that the power gained from this type in the training leading to performance kinesthetic best in sports activity practitioner and that increase the ability of muscles to contract at a faster rate and detonated more than a year through the range of motion in the joint movement of all speeds James & Robert 1985, as that exercise is used to improve the flexible when followers : - (Allawi & osama 1999)

- 1 - Warm up all the muscles of the body.
- 2 - During the possibility of working in full and that means not when fatigue muscle.
- 3 - exercise warm-up and flexibility lifted gradually when lifting requirement (intensity - size) as the containment physical education lesson and in a planned and properly on exercises stretching and exercises jump led to the development of elements of fitness (flexibility, strength), the fact that exercises jump characterized the nature of the speed and power of the muscles men and this is consistent with the sentiments of (Darwish, 1988)

Said the use of stairs and terraces, and other tools to strengthen the muscles of the two men preceded by stretching exercises and a better balance it. (Darwish, 1988), as well as "all that this is consistent with the sentiments(Allawi 1984)use body weight to carry physical particular with a view to the development of strength, speed, and this link

between muscle strength and speed motor muscle is one of the requirements for athletic performance and in accordance with the nature of the game or effectiveness). (Allawi and Radwan1984)(1984) adds Wilmore and Costel (1994) that exercises stretching used to improve the ability to bounce by

bridging the gap between strength training and speed by using the so-called reaction prolongation, which facilitates and adapts the units kinetics additional muscle during the performance and gain muscle recipe rubber Wilmore, & costill (1996)

Table (4) : Circles shows the values and standard deviations and the value of (v) and spreadsheet calculated for the control group of the variables under consideration.

Variables	The unit of measurement	The control group		The experimental group		T Calculated	T Tabulated
		The mean,	standard deviation	The mean	standard deviation		
Bend the trunk forward	CM	2,10	1,2	20,05	0,96	0,06	2,20
Background flexibility of the spine	CM	39,9	3,2	40,4	1,08	0,29	2,20
speed-strength of the arms	Repetition	9,32	1,2	16,17	2,99	2,921	2,20
Speed-strength Foot	CM	7,52	2,3	12,63	2,34	2,56	2,20
Pulse at rest	Beats a minute	75,32	2,31	85,32	2,9	4,36	2,20
After the voltage pulse	Beats a minute	132,2	2,5	146,3	2,7	4,98	2,20
Vital capacity	MLiter	3,2	0,93	3,40	0,82	0,43	2,20

T. tabular value below the level of significance and 005 degrees of freedom (11) = 2.20

Evident from the table (4) the emergence of significant differences between pre and post tests and in favor of the post test. The researchers attributed these differences to contain moral program physical education lesson usual exercises and games are working more or less on the development of physical attributes and improve as much as possible.

Through the table (5) shows significant differences between the control and experimental groups researchers attribute these differences to that exercise used within the physical education lesson, which had been prepared by the researchers had a positive impact and a positive reflection on Sftia strength, flexibility and functional capabilities under discussion.

This is consistent with the sentiments raised(Mohammed Sabri said)the ability of the muscle the most important physical qualities necessary in a lot of games and sports activities ability to jump one important indicator of the ability of the muscle of the two men and is considered the cornerstone of the performance of many of the skills of various difficulty. (WWW.IRAQ.SPORT ACDEMY, 2012).

As for the control group, there has been developed, "but not the obvious, and this is due to the adoption of the teachers teaching in a specific pattern so it was not noticeable."

It is noteworthy that the(Feki 2001) (codified the use of exercises in the training of speed-strength in legs and arms exercises using body weight and jump on the deep funds of different heights, both man and one or both of the two men as well as "all that.

The use of these exercises work on the performance of the movement is matched with performance requirements and includes lengthening default as it happens there is a positive change by increasing resilience). (Feki 2001) attributes the researchers the changes that have occurred in the functional capabilities under discussion (pulse rate at rest and after voltage) to be regarded as the pulse is one of the reactants important fact specific for portability body to withstand voltage and especially your heart, weight and respiratory Rising pulse to a certain extent and and then return to its previous state before the effort is considered one of the most important medical examinations to change susceptibility and body fitness, and this is consistent with the sentiments Hussein (1990) and Hassanein,

Abdel Moneim (1988) to the nature of the exercises helped develop withstand working muscles responsible through training Practice hop leaping as well as "all exercises stretching used and this has had a clear impact on the events of changes in the respiratory tract and in a positive way (increasing the

size of the lungs) breadth of the rib cage, and that the integrity of the respirator body significantly associated with the skills they require periodic respiratory and skin that was not evident in the value of vital capacity.

Table (5): Circles shows the values and standard deviations and the value of (v) the calculated and indexed-dimensional tests for the control and experimental groups in the variables under consideration:

Variables	The unit of measurement	Pretest		Posttest		T Calculated	T Tabulate
		The mean,	standard deviation	The mean	standard deviation		
Bend the trunk forward	CM	2,10	1,2	20,05	0,96	0,06	2,20
Background flexibility of the spine	CM	39,9	3,2	40,4	1,08	0,29	2,20
speed-strength of the arms	Repetition	9,32	1,2	16,17	2,99	2,921	2,20
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After the voltage pulse	Beats a minute	132,2	2,5	146,3	2,7	4,98	2,20
Vital capacity	MLiter	3,2	0,93	3,40	0,82	0,43	2,20

Conclusions: -

1 - Stretching exercises, which was used by researchers in the physical education lesson has a clear impact in raising the level of flexibility to the students.

2 - Exercises jump hop employee within the physical education lesson has a clear impact in raising the level of speed-strength of the two men and arms.

3 - Diversity is obvious in the exercises used in physical education lesson is obvious effect of raising the level of functional capacity (heart rate, vital capacity)

Recommendation: -

- The need to employ physical education lesson in a way serving the evolution of all physical abilities of the students.

Use of modern methods in physical education lesson as he studied dynamically raises motivation and the performance is just boredom for students.

The need to employ stretching exercises inside leaping.

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