



The impact of a taiapu program on some elements of physical fitness (flexibility – speed – agility) among first-grade students

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Abstract

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This study aimed to identify the impact of a special program for taiapu exercises on some elements of physical fitness (flexibility – speed – agility) among first grade students. The researcher used the experimental approach (one group design) to suit the research problem. The program was applied to a sample of 20 middle school students who were selected in a deliberate manner. The program lasted for 8 weeks with two units per week. The results of the research showed that there are statistically significant differences between the pre and post measurements and in favor of the post measurements in the research variables (flexibility – speed – agility). The researcher recommended the need to practice sports activities at this age stage because of their positive effects on the daily life of the individual.

1. Introduction

The importance of sport has emerged as a single means of developing the elements of physical and motor fitness related social, psychological, health and mental values. It has many benefits and repercussions on the daily life of the individual as the practice of sport positively affects the academic level of school students and provides them with many direct learning skills such as memorization, concentration, thinking and others. The practice of sports at an early age contributes to building physical qualities that lead to the body to an appropriate degree of fitness and good health. It also reduces the chances of many diseases such as diabetes, muscle weakness, obesity and osteoporosis. Physical qualities are born with man and grow with his growth. This growth affects the nature of the individual's lifestyle and the degree of his motor activity whether this activity is intentional or unintentional. These qualities can be developed and improved by continuing to practice sports activities. This leads to a change in the state of the internal body systems, which are reflected in the external appearance of the body and daily movements. School sports help prepare a generation capable of facing difficulties and success at different stages of life. It enhances students' physical and mental abilities, helps them achieve their future goals, and creates an effective balance between physical and mental development. It also helps to increase cardiovascular fitness as well as bone density. It also helps to reduce blood sugar levels, chronic muscle tension, and strengthen the lungs (Essam Abdel Khalik 6: 116), as the practice of sports activities is an opportunity to identify talents and guide them to achieve excellence, and the interest in sports reduces internal activities such as watching television and video games for long hours that lead to physical inactivity and

many health problems, and sports training is concerned with the development of physical qualities. The specialists and researchers that choosing the appropriate type of training has a great role in the development of physical, motor and skill traits through the identification of many modern training systems. It was found that tapio exercises are a type of training that contributes to raising the level of physical traits. Tapo exercises have become widely used, as they have been able to replace the treadmill and stationary bicycles for ease of use and practice , in addition to providing us with different training doses of intensity as well as wonderful motor diversity that improves speed, flexibility, balance, agility, neuromuscular compatibility and muscular ability (Shirin Ahmed 29:4).The importance of research lies in the use of the program for tapo exercises in some physical elements (Flexibility – Speed – Agility) among first–grade students.

1-2 Research Problem:

Despite the growing awareness about the threats caused by sedentary lifestyle diseases and the problems caused by lack of physical activity, many people still consider academic achievements as the only goal of education and neglecting the physical aspect, as lack of motor activity and sitting in the classroom for long hours and not practicing any physical activity leads to restriction and impairment of his motor and physical activity, which leads to the accumulation of fat and weight gain, so the body loses its agility and lack of flexibility. Therefore, students need to diversify during the school day. They must be able to satisfy their tendency to move by practicing various activities, events and games such as running, jumping, throwing, playing team games and participating in competitive competitions during the physical education lesson for the purpose of stimulating students by practicing these activities and events and directing their

sense of the importance of cooperation, competition and perseverance. Here lies the problem of research that diversity, change and modernity are among the main pillars of students' access to physical fitness that enables them to perform the rest of the activities of daily life. They make the individual feel confident in terms of health, psychological, social, mental and physical that qualify him to live in a balanced manner within society in the best way. This situation comes through research and studies. Continuing what is new and different and moving away from imitation and boredom when performing physical exercises, where the researcher decided to use a new method to raise the level of physical fitness of students through the application of Taipo exercises to some physical qualities

1-3 Research Objectives:

- 1-Preparing a special training program using taipo exercises.
- 2- Knowing the impact of taipo exercises on some physical qualities (speed – agility – flexibility) for first grade students

3-1-4 Research Hypotheses:

- 1-There are statistically significant differences between the pre-test and post-test and in favor of the post-test for the members of the research sample in some physical qualities (flexibility – speed – agility) using the training program for the Taipo exercises.

1-5 Research Areas:

Human field: A sample of first-grade students is average at ages (11-12 years).

Temporal range: Duration from 15-2-2024 to 23-4 – 2024.

Spatial area: Medium Al-Kawthar Square/ Rusafa 3.

1-6 Definition of the Terms:

Typo exercises: They are exercises consisting of sets of classic martial arts art movements with the addition of arm movements and foot movements to improve the work of the upper and lower part. The exercises are performed on the music, which makes them more interesting and effective (40:12Billy Blank) .

2- Research Methodology and Field Procedures:

2-1 The researcher used the one-group experimental approach. The experimental group with pre and post-tests to suit the research problem.

The research sample consisted of intermediate first-grade students enrolled for the academic year 2023-2024 at the age of (11-12) years. They numbered (20) students who were deliberately selected and ready to implement the training program for Taibo.

2-2-1 Homogeneity of the research sample :

The research sample was homogeneous in the variables of age -height -weight

This service allows customers to issue a permit	Measurements	Arithmetic Mean	Standard Deviation	Modulus of torsion
1	Age - Month	140	5,34	0,09
2	Length	148	6:47	0,67
3	Weight	00:43:27	4,18	0,70

Table (1) shows the homogeneity of the research sample in some variables

To ensure that they fall under a moderate trend in the research variables, as the values of the torsion coefficient of the research variables are limited to (± 1).It means the moderation of the distribution of the research sample in the research variables.

2-3 Devices and tools used in the research:

A weighing scale.

voice box

Whistle

Cones No. 6

Laser discs

Stopwatch

Electronic Calculator

Arab and foreign sources

the Personal interview:

Ancillary staff

Information collection form to record data for each laboratory

International Information Network (Internet)

2-4 Tests and measurements used in the research:

2-4-1: Measurement Physical Qualities:

1. Resilience Test: -

BENDING THE TORSO FORWARD FROM STANDING (HASSANIN 8: 260)

* PURPOSE OF THE TEST : MEASURING THE FLEXIBILITY OF THE SPINE.

* TOOLS: 50 CM HIGH BACKLESS SEAT, A NON-FLEXIBLE RULER DIVIDED FROM ZERO TO ONE HUNDRED CM FIXED VERTICALLY ON THE SEAT SO THAT THE NUMBER 50 CM PARALLEL TO THE SEAT SURFACE AND THE NUMBER 100 PARALLEL TO THE LOWER EDGE OF THE SEAT, A WOODEN INDICATOR THAT MOVES ON THE SURFACE OF THE RULER.

* TEST SPECIFICATIONS: THE LABORATORY STANDS ABOVE THE SEAT WITH TWO FEET JOINED WITH THE TOES FIXED ON THE EDGE OF THE SEAT. THE LABORATORY BENDS ITS TORSO FORWARD AND DOWN SO THAT THE INDICATOR PUSHES ITS FINGERTIPS AS FAR AS POSSIBLE, PROVIDED THAT IT IS FIXED AT THE LAST DISTANCE IT REACHES FOR TWO SECONDS.

DIRECTIONS

– KNEES SHOULD NOT BE BENT WHILE PERFORMING.

– THE LABORATORY HAS TWO ATTEMPTS TO RECORD THE BEST OF THEM.

- THE TORSO SHOULD BE BENT SLOWLY.
- must be held at the last distance reached by the laboratory for 2 seconds

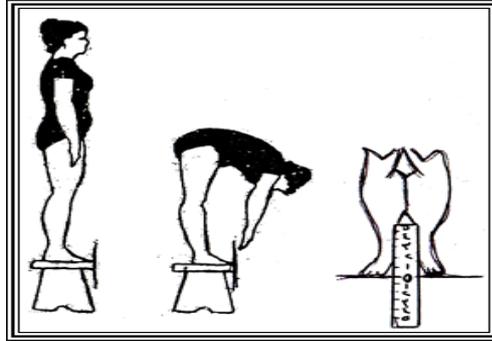


Figure (1)between measuring the flexibility of the spine

2- Speed test:

Test Purpose: Speed Measurement (Right Difference 3:60)

Performance specifications: The laboratory stands behind the starting line, and when listening to the start signal, the laboratory runs for 20m as fast as possible

Registration: The laboratory records the best time it has achieved in the three allowed attempts.

3- Agility Test :

Fleischmann's Zigzag Run (Hassanin 8 : 277):

* Purpose of the test : Measuring a person's ability to change the direction of movement of the body .

* Tools : six cones, stopwatch .

* Performance specifications: The laboratory stands behind the start line, and when listening to the start signal, the laboratory runs according to the specified itinerary, provided that it performs two cycles, and the second cycle ends by crossing the start line.

directions

- The specified itinerary must be followed.
- If the laboratory makes a mistake, it stops and repeats the test after it will not get enough rest.
- The cones should not be touched while running.
- He records for the laboratory the time he travels in the two courses.



Figure (2) shows Fleischmann's zigzag test

2-5 Field Research Procedures:

2-5-1 Exploratory experiment:

The researcher conducted the exploratory experiment before starting the main experiment to control the variables related to measurement. It identifies the obstacles that the researcher may face in the research period. It began by measuring some physical qualities (flexibility – speed – agility), the extent of the sample 's applicability to the training program for the Typo exercises. Therefore, the experiment was conducted on 15/2/20 24 on Thursday at 10 am in Al-Kawthar medium square on (5) students outside the main sample.

2-5-2 Pre-tests:

Pre-tests were conducted on the research sample in Al-Kawthar medium yard on 18\ 2 \ 2024 at ten o'clock in the morning on Sunday for the research variables under study (flexibility – speed – agility). The researcher worked on fixing all the factors related to the tests, place and time, the method of implementing the tests

and the tools used in the research, preparing the auxiliary team in order to obtain accurate results.

2.5.3 Preparation of the training program:

- After using a number of experts in the field of training, resources and access to many studies, the researcher was able to develop the proposed taipu exercises to improve some physical qualities according to a number of foundations that suit the level of the research sample students, which are as follows:
- The program was implemented during eight weeks for each week, two training modules. The duration of the training module ranges from (35–45) minutes.
- The Taipo exercises should achieve the goal set for it, which is to improve some physical qualities (flexibility – speed – agility) under discussion.
- The researcher took into account when developing the exercises for the Typo to suit the level of physical and age of the students.
- Focusing on complex and varied movements and doing more than one part of the body at a time because it has a positive impact on improving some physical qualities (flexibility – speed – agility) under study.
- Progressing gradually is easy to difficult in the speed of performance when applying special exercises for Typo.
- Musical accompaniment when performing Taipo exercises, as music is an important and exciting factor to continue performing without feeling bored and tired early.
- Taking into account the individual differences between the sample members during the performance of Taipo exercises.
- Taking into account the security and safety of the sample members when applying the training program for the Taipo exercises.

4-5-2 Post-tests:

After the completion of the implementation of the training program, the post-tests were conducted at the same place and time under the same conditions in which the pre-tests were conducted on 23/2/2024/Tuesday. The results were recorded for the purpose of conducting the appropriate statistical treatments.

6-5-2 Statistical means:

Arithmetic Mean

Standard Deviation

Modulus of torsion

- t test for one sample

-1Presentation and analysis of the results of pre and post tests to measure physical qualities.

Table (2) shows the value of (C) calculated and (C) tabular and significant difference between pre and post tests to measure physical qualities.

Variables	Unit of Measures	Testing	Arithmetic Mean	Standard Deviation	Calculated t value	Tabular (T) Value	indication, marker, significance, designation, augury
Perceiving	cm	Pre	16.2	4,8	4.5	2,093	Significant
		Post	17.7	4.5			
Velocity	33m/s	Pre	13,6	2,3	4,02	2,093	Significant
		Post	12.2	1,6			
Elegance.	cm	Pre	16-4	2,6	3,9	2,093	Significant
		Post	14/09	2,3			

At the level of significance (05 , 0) and degree of freedom (19)

Table (2) shows that there are statistically significant differences between the pre and post measurements in favor of the post measurement in physical qualities (flexibility – speed – agility). The researcher attributes these differences to the APPLIED TRAINING PROGRAM FOR TAIPO EXERCISES IN TERMS OF WORK, COMFORT, REPETITIONS AND INTENSITY THAT SUIT THE PHYSICAL ABILITY OF THE SAMPLE. THIS LED TO AN IMPROVEMENT IN FLEXIBILITY BY PERFORMING EXERCISES WITH THE APPROPRIATE RANGE OF MOVEMENT THROUGH WHICH HE CAN PERFORM THE EXERCISE WITH COMPLETE ACCURACY AND WITHOUT DIFFICULTY. TAIPO EXERCISES WORK TO MOVE THE BODY EASILY AND FLEXIBLY, WHICH LEADS TO RAISING THE LEVEL OF PHYSICAL FITNESS AND MOBILITY OF THE INDIVIDUAL. IT IS ALSO AN IMPORTANT MEANS OF SHAPING AND BUILDING THE BODY AND GAINING GOOD STRENGTH (82:11)

Nemat Abdel Rahman (2000AD) adds that taiapu exercises are considered indoor aerobic activities and no matter how different their methods and methods. The goal is one which is the individual's acquisition of physical fitness that the practice of these activities includes training to develop flexibility, aerobic capacity and neuromuscular compatibility (11:10).

As for the improvement in agility, the researcher attributes it to the fact that this trait is related to the exercises of the nervous system including motor speed and compatibility. They are related to various exercises as the movements of jumping on the spots and the change of direction helped to increase the ability to control the body positions in the space. Then the clear improvement in agility and aesthetic movement in the test by increasing motor control (2: 225). As the researcher took into account the diversity and change of direction when applying the training program for the Typo exercises as well as controlling the difficulty of the exercises and the direction of controlling the motor ranges when performing the exercises. It

helped to increase the elasticity of the muscles and expand the motor range of the spine. Kamal Jameel states that "the diversity in giving one sport exercises avoids intellectual confusion and increases the desire for training, and the experience in the diversity of sports performance also gains the individual various physical qualities and abilities" (7:25). Abdullah Hussein explains that "it is possible for the training program to make constant changes and adaptations in physical qualities, especially if it exceeds a period of 6 weeks (5: 208), the most appropriate stage for the development of general fitness is between childhood and adolescence and even young people if the individual can absorb and improve many motor exercises Such as (jogging, jumping, jumping, etc.) (199:9). As for the improvement in speed, it is due to the Typo exercises. It is a new method of aerobic exercise that works to develop and improve the elements of physical fitness and physiological efficiency of the individual (1:24). The researcher believes that the Typo exercises contain a variety of movements that work on large muscle groups in the body, such as the muscles of the arms, legs and torso, and lead to stability and movement in various directions (front, back, side, side, slant) and others. The use of more than one organ of the body at the same time during the performance of the exercises (13:41). As for music and varied rhythm, it has an effective effect on the performance of the exercises for long periods without stopping and not feeling tired early. It increases the physical efficiency of the individual.

Conclusion and recommendations

4-1 Conclusions:

In light of the research results, the characteristics of the sample, its limits, the methodology used and the statistical analysis method followed, the following results were reached:

- 1– Typo exercises have a positive impact on the development of physical qualities (flexibility – speed – agility) of the research sample.
- 2– The Taipo exercises, which are characterized by varied and changing movements with the accompaniment of music, led to the continuation of the sample members in the application of the program.

4-2Recommendations:

- 1– Conducting similar research and studies on different age groups and both genders.
- 2- Using taipu exercises on other physical abilities and different sports.

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