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THE RELATIONSHIP BETWEEN GYMNASTICS FORWARD ROLLS AND STUDENTS' PHYSICAL FITNESS

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ABSTRACT

The identification of the problem found is Is there a relationship between floor gymnastics front rolls and physical fitness of grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency? Floor gymnastics is one of the sports that is often done indoors and outdoors. Floor gymnastics is done on a floor with a 12 x 12 meter mat in a room measuring 14 x 14 meters. The purpose of floor gymnastics is not only for sports or recreation, this floor gymnastics sport in addition to maintaining health can also be used as physical exercise, increasing endurance to body coordination, floor gymnastics can also make our bodies more ideal. In this study, the researcher used a quantitative research method with a descriptive correlational technique, which aims to provide an overview of an event that is happening when the research is taking place without considering the events before and after. The sample in this study was 30 grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency with a cluster sampling technique. Based on the results and discussion of the research that has been conducted on the relationship between forward rolls and physical fitness, this is proven by the conclusion, namely: there is a significant relationship of 12.46 between forward rolls in floor gymnastics and the physical fitness of grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency. Based on the conclusion, this study has implications for teachers that there is a relationship between forward rolls and physical fitness where this is proven by the forward roll test, and the flexiometer test by paying attention to the forward roll movement in floor gymnastics learning.

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Kata kunci
Senam Lantai
Roll Depan
Kebugaran
Olahraga
Siswa

ABSTRAK

Pada penelitian ini identifikasi masalah yang didapati yaitu Apakah ada hubungan roll depan senam lantai dengan kebugaran jasmani siswa kelas VI SD Negeri 1 Percontohan Kampung Tanjung Karang Kabupaten Aceh Tamiang?. Olahraga senam lantai merupakan salah satu olahraga yang kerap dilakukan di dalam ruangan maupun di luar ruangan. Senam lantai dilakukan di atas lantai yang beralaskan matras yang berukuran 12 x 12meter dalam ruangan yang berukuran 14 x 14 metrer. Tujuan dari olahraga senam lantai bukan hanya untuk sekedar olahraga ataupun sekedar rekreasi, olahraga senam lantai ini selain untuk menjaga kesehatan juga dapat dijadikan sebagai latihan fisik, meningkatkan daya tahan hingga kordinasi tubuh, olahraga senam lantai juga dapat menjadikan tubuh kita menjadi lebih ideal. Dalam penelitian ini peneliti memakai metode penelitian kuantitatif dengan Teknik deskriptif korelasional, yaitu yang bertujuan untuk memberikan gambaran tentang suatu peristiwa yang sedang terjadi saat penelitian berlangsung tanpa menghiraukan

peristiwa sebelum dan sesudahnya. Sampel dalam penelitian ini adalah siswa kelas VI SD Negeri 1 Percontohan Kampung Tanjung Karang Kabupaten Aceh Tamiang sebanyak 30 siswa dengan teknik cluster sampling. Berdasarkan hasil dan pembahasan penelitian yang telah dilakukan mengenai hubungan roll depan dengan kebugaran jasmani hal ini dibuktikan dengan kesimpulan yaitu: adanya hubungan signifikan sebesar 12,46 antara roll guling depan senam lantai dengan kebugaran jasmani siswa kelas VI SD Negeri 1 Percontohan Kampung Tanjung Karang Kabupaten Aceh Tamiang. Berdasarkan kesimpulan, penelitian ini berimplikasi pada guru bahwa terdapat hubungan antara roll depan dengan kebugaran jasmani dimana hal tersebut dibuktikan oleh uji tes guling depan, dan tes flexiometer dengan memperhatikan gerakan guling depan dalam pembelajaran senam lantai.

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INTRODUCTION

Learning is a process of interaction between teachers and students that is carried out in a planned and conscious manner and is carried out in the classroom in order to improve students' abilities.(Uci Dwi Cahya, 2023) Pendidikan jasmani bukan hanya bertujuan mengembangkan ranah jasmani saja, tetapi juga dapat mengembangkan kesehatan, kebugaran jasmani, kemampuan berpikir secara positif, dan dapat menerapkan bagaimana tata cara hidup yang sehat.(Ikhsan Nurdin Nuromadon & Asep Angga Permadi, 2024)

Physical education is an educational process that utilizes physical activity and health to produce holistic changes in the quality of individuals, both physically, mentally and emotionally. (Mustopa Aripin, 2020) Gymnastics is a branch of sport that involves the performance of movements that require strength, speed and harmony of regular physical movements. Modern forms of gymnastics are: uneven bars, balance beams, floor gymnastics. Gymnastics has so many effects on individuals when done with good attitude and respect. (Wasis Nugroho & Rahma Dewi, 2022)

Floor exercise is a holistic form of sport because it involves whole body movements, including flexibility, strength and coordination. The movement elements consist of rolling, jumping, jumping, spinning in the air, supporting with hands or feet to maintain a balanced posture or when jumping forward or backward. (Alma Amanda & Munifah Bahfen, 2024) In the sport of gymnastics, especially artistic gymnastics, there are various movements ranging from light movements to very difficult movements such as somersaults, double somersaults and many other difficult movements, of course with high complexity and a high risk of injuring the athlete.

Floor gymnastics is done on a floor with a 12 x 12 meter mat in a 14 x 14 meter room. The purpose of floor gymnastics is not only for sports or recreation, sports at school, but can be used as preparation for students to participate in floor gymnastics competitions, both between schools and at the national level later. There are several floor gymnastics movements that can be learned, one of which is the front roll movement. The front roll movement is a rolling movement towards the front using the back of the body starting from the nape, back, waist, and hips. The front roll movement is the basis for floor gymnastics, the front roll movement can be a form of basic training for advanced movements such as tiger sprong / tiger jump, handstan roll, or roll kip. To be able to master the front roll movement technique properly, elements of arm muscle strength, leg push strength, speed, balance, and body flexibility are needed so that we can do the front roll movement properly and correctly.

Students who have a higher level of physical fitness will generally have better performance in academic activities, while students with a lower level of physical fitness will have difficulty coping with the burden of academic work. Physical fitness is the ability of a person's body to carry out daily activities or work without causing excessive fatigue, so that the body still has energy reserves to handle the additional workload.

Floor gymnastics skills, especially forward rolls, can only be achieved through the process of learning the movement. In the process of learning floor gymnastics skills, forward rolls need to be supported by physical components, including flexibility and strength. Flexibility is a very important physical ability for gymnasts to have. Because every movement that is done will be more beautiful if it is able to show a flexible and smooth body position. The strength of the arm muscles in question is the strength of the triceps and biceps muscles whose movements are based on the elbow joint (articulatio cubiti). This arm muscle strength is expected to play a role in performing floor gymnastics movements (forward rolls). In the forward roll movement, how do the two arms play a role in supporting the body which is lifted slowly and then the body weight begins to be transferred forward until the roll movement is performed.

Floor gymnastics is one of the gymnastics groups. Called floor gymnastics, because the gymnastics movements are done on the mat. Floor gymnastics is also called free, because when doing it does not use other objects or tools. One aspect or scope of physical education is gymnastics. The general definition of gymnastics is a translation of the word Gymnastick or gymnastiek in Dutch. Gymnastics is known in Indonesia as one of the sports. In English it is known as Gymnastic from the Greek word Gymnos which means naked. The term Gymnastic is used to indicate physical activities that require freedom of movement, so it needs to be done naked or half-naked. This could happen because at that time the technology for making clothing materials did not allow for making clothes that were flexible and followed the movements of the wearer.

Physical activities that require a wide range of motion. Furthermore, gymnastics is a body exercise that is chosen and constructed intentionally, consciously, and planned, arranged in a skillful manner and instills mental spiritual values. A combination of tumbling, acrobatics, and chalestenic. Chalestenic comes from the Greek word kolos which means beautiful and stenos which means strong.

Some people think that learning forward and backward rolls is just rolling on the mat so they don't listen to the teacher's explanation, and some female students are afraid to roll on the mat for fear of injury, how to do forward and backward rolls is often just rolling forward and backward without using the correct basic techniques. (Bahrul Ilmi et al., 2018) Meanwhile, the reality that occurs in the physical education learning process for forward roll material for grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency, it can be seen that many students are passive and less enthusiastic in the learning process. This can be seen from the activities of students who sit a lot, chat, are noisy and students who try to practice the forward roll floor gymnastics material are only a few in number.

In order to be able to do a forward roll movement properly and correctly, there are several factors that influence one of these factors is the strength of the arm muscles, the strength of the arm muscles is the muscle contraction power achieved in one maximum effort. The strength of the arm muscles will help hold the body so that it can do the forward roll movement correctly and without any mistakes. One of the components that influences the forward roll movement is the strength of the arm muscles.

Another factor that affects the forward roll movement is flexibility. Flexibility is a person's ability to move through the maximum joint range of motion. Good physical fitness can improve a person's quality of life in carrying out daily activities. A person who has a good level of physical fitness will find it easier to do activities without experiencing excessive fatigue. One thing that can be done to maintain physical fitness is by exercising. Physical fitness can be explained that activities related to health and skills can be measured including cardiorespiratory fitness, muscle strength and endurance, body composition, flexibility, balance, agility, coordination, reaction time, and power. (Afifuddin et al., 2021)

Students who have a higher level of physical fitness will generally have better performance in academic activities, while students with a lower level of physical fitness will have difficulty coping with the burden of academic work. (Aliriad et al., 2023) Physical fitness is the ability of a person's body to carry out daily activities or work without causing excessive fatigue, so that the body still has energy reserves to handle the additional workload.

The ten elements of physical fitness components include: 1) Strength, 2) Endurance, 3) Explosive Power, 4) Speed, 5) Flexibility, 6) Agility, 7) Coordination, 8) Balance, 9) Accuracy, 10) Reaction. One of the components that can help perfect the forward roll movement is the flexibility component where if someone wants to do a good and correct forward roll movement, then good flexibility is needed.

Healthy lifestyle includes food, rest, and exercise. To obtain physical fitness, one must pay attention to a continuous activity program, nutritious food, adequate rest, relaxation and adequate health maintenance. Based on this opinion, physical fitness is influenced by nutritious food factors, adequate rest or sleep factors and routine physical activity or exercise factors. People who often do sports that involve muscle strength and are balanced with good nutritional intake, the better the level of physical fitness. Therefore, physical fitness is very necessary for the continuity of the education process so that it runs stably without any obstacles regarding physical ability to continue learning.

Fitness has various components in it, this can affect the fitness. The following are components that can affect physical fitness, namely: (1) Strength is the ability of muscles to do work, such as moving body parts when running, walking, and lifting weights while moving. (2) Endurance is the ability of an individual to use the heart, lungs, and circulatory system effectively and efficiently in an activity without experiencing significant fatigue. (3) Muscle power is a person's ability to use maximum power that is released quickly. (4) Speed is a person's ability to perform movements repeatedly in the shortest possible time (5) Flexibility is a person's ability to adapt to all activities by stretching the body widely. (6) Agility is a person's ability to change places or move in a certain area from front to back, from left to right to the side. (7) Coordination is an individual's ability to combine a number of movements into one consistent movement pattern. (8) Balance is a state in which the elements or strengths in a system are in a balanced proportion, so that it can control movement properly and correctly. (9) Accuracy is an individual's ability to freely direct movements towards a target. (10) Reaction is the ability to act immediately and quickly in response to stimuli produced by the senses.

There are 6 factors that affect physical fitness, namely elements that affect a person's level of physical fitness, which distinguish them from each other, namely: (1) Food factors such as consuming foods high in carbohydrates can make the body's endurance in the best and optimal condition. (2) Age factors, namely as we get older, everything gets better because the function of the organs in the body will increase optimally. While in adulthood, there will be a loss of physical strength due to damage to many body tissues. (3) Healthy lifestyle factors such

as regular sleep, eating healthy foods, not smoking. (4) Environmental factors such as access to sports, air pollution are very influential. (5) Exercise and sports factors, namely regular exercise or sports can improve physical fitness. (6) Technology factors: with the existence of technology such as cellphones and increasingly sophisticated transportation tools, it will have a great influence on physical fitness because when doing too much it will create a habit of the body that is less mobile.

Thus, efforts to maintain and improve physical fitness through. The level of physical fitness and nutritional status of students is very important, because it can support the achievement of overall educational goals to the maximum according to the level of ability of each student. Based on the above, the author is very interested in researching the problem with the title "The relationship between floor gymnastics front rolls and physical fitness of grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency".

METHOD

In this study, the researcher used a quantitative research method with a descriptive correlational technique, which aims to provide an overview of an event that is happening when the research is taking place without considering the events before and after. This method is used because this study is related to the parable of information that describes existing symptoms. Especially regarding the extent of the relationship between floor gymnastics front rolls and physical fitness of grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency, Kampung Tanjung Karang, Aceh Tamiang Regency. Correlation research is a research conducted by researchers to determine the level of relationship between two or more variables, without making changes, additions or manipulations to existing data.

The relationship in this study is an attempt to find whether there is a relationship between arm muscle strength, trunk flexibility, and leg muscle strength on the effect of forward roll movements in floor gymnastics learning for class VI of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency. In the hypothesis, it is stated that there is a relationship between one variable and another variable, so the correlational procedure can be used to test the hypothesis.

RESULT AND DISCUSSION

1. Result

After the data is obtained from each variable, the next step is to test the analysis prerequisites which aims to determine whether this study meets the requirements for using parametric or infersal statistics and with the help of SPSS version 24. In this study, the hypotheses proposed are as follows:

Ho: there is a significant relationship between forward rolls and physical fitness.

Ha: there is a significant positive relationship between forward rolls and physical fitness.

The hypothesis will be tested with parametric statistical tests, namely the "Product Moment" correlation. To find out the results of this hypothesis testing, the hypothesis results can be tested by comparing the level of significance (p-value). From the data collection that was taken, it was successfully collected and passed the stages of the correlation test.

2. Discussion

The results of the forward roll test to determine the relationship between floor gymnastics forward rolls and the physical fitness of grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency are as follows:

Table 1. Forward Roll Test Assessment Results

No	Name	Movement Score
1	Ika Maya sari	60
2	Muhammad Firman	80
3	Ikram Maulana	80
4	Muhammad Fauzan	80
5	Dewi Amalia	40
6	Juliana	60
7	Aisyah Munawarah	60
8	Isma Nadia	60
9	Ramadhani Safitri	80
10	Nur Liza	60
11	Syaira Putri	40
12	Putri Ananda	60
13	Lisa Ramadhani	80
14	Cut Putri	80
15	M. Iqbal	80
16	Maulana	80
17	Fahrurrazi	60
18	Samsul Bahri	80
19	Muhammad Gunawan Habibi	80
20	Muhammad Roji	80
21	Irhas	60
22	Alfitra	80
23	M.Akmal	80
24	Suci Mailinda	60
25	Syarifah Fauziah	60
26	Sarah	80
27	Iqlima	40
28	Siti Maryam	60
29	Mutiara Safitri	60
30	Ida Fitriani	40
Total Score		2000
Average Value		66.6

From the results of the forward roll test, students got an average score of 66.6 out of a total of 30 students.

Table 2. Tes Flexiometer (Range of Body Motion)

No	Name	Score (cm)
1	Ika Maya sari	85
2	Muhammad Firman	90
3	Ikram Maulana	95
4	Muhammad Fauzan	85
5	Dewi Amalia	85

6	Juliana	90
7	Aisyah Munawarah	95
8	Isma Nadia	95
9	Ramadhani Safitri	95
10	Nur Liza	95
11	Syaira Putri	90
12	Putri Ananda	80
13	Lisa Ramadhani	80
14	Cut Putri	80
15	M. Iqbal	90
16	Maulana	90
17	Fahrurrazi	80
18	Samsul Bahri	80
19	Muhammad Gunawan Habibi	80
20	Muhammad Roji	80
21	Irhas	90
22	Alfitra	90
23	M.Akmal	80
24	Suci Mailinda	85
25	Syarifah Fauziah	85
26	Sarah	85
27	Iqlima	90
28	Siti Maryam	90
29	Mutiara Safitri	80
30	Ida Fitriani	80
Total Score		2595

Table 3. The Relationship Between Forward Rolls and Physical Fitness

No	Name	X	y	x^2	y^2	x.y
1	Ika Maya sari	60	85	3600	7225	5100
2	Muhammad Firman	80	90	6400	8100	7200
3	Ikram Maulana	80	95	6400	9025	7600
4	Muhammad Fauzan	80	85	6400	7225	6800
5	Dewi Amalia	40	85	1600	7225	3400
6	Juliana	60	90	3600	8100	5400
7	Aisyah Munawarah	60	95	3600	9025	5700
8	Isma Nadia	60	95	3600	9025	5700
9	Ramadhani Safitri	80	95	6400	9025	7600
10	Nur Liza	95	95	9025	9025	9095
11	Syaira Putri	90	90	8100	8100	8100
12	Putri Ananda	80	80	6400	6400	6400
13	Lisa Ramadhani	80	80	6400	6400	6400
14	Cut Putri	80	80	6400	6400	6400
15	M. Iqbal	90	90	8100	8100	8100
16	Maulana	90	90	8100	8100	8100
17	Fahrurrazi	80	80	6400	8100	6400
18	Samsul Bahri	80	80	6400	6400	6400

19	Muhammad Gunawan Habibi	80	80	6400	6400	6400
20	Muhammad Roji	80	80	6400	6400	6400
21	Irhas	60	90	3600	8100	5400
22	Alfitra	80	90	6400	8100	7200
23	M.Akmal	80	80	6400	6400	6400
24	Suci Mailinda	60	85	3600	7225	5100
25	Syarifah Fauziah	60	85	3600	7225	5100
26	Sarah	80	85	6400	7225	6800
27	Iqlima	40	90	1600	8100	3600
28	Siti Maryam	60	90	3600	8100	5400
29	Mutiara Safitri	60	80	3600	6400	4800
30	Ida Fitriani	40	80	1600	6400	3200
Total Score		2000	2595	160125	227075	5190000

So the relationship between the front roll of floor gymnastics with the physical fitness of grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency based on the correlation test is 1246.3. This shows a significant relationship.

CONCLUSION

Based on the results and discussion of the research that has been conducted regarding the relationship between forward rolls and physical fitness, this is proven by the conclusion, namely: there is a significant relationship of 12.46 between forward rolls in floor gymnastics and the physical fitness of grade VI students of SD Negeri 1 Percontohan Kampung Tanjung Karang, Aceh Tamiang Regency.

Based on the conclusion, this study has implications for teachers that there is a relationship between forward rolls and physical fitness, which is proven by the forward roll test, and the flexiometer test by paying attention to the forward roll movement in floor gymnastics learning.

This research cannot be said to be even far from perfect, and still has several limitations, including: data collection in this study was only carried out with direct tests (forward roll practice) and no interviews were conducted with respondents, so the information obtained was very limited. There are limitations to research using questionnaires, namely that sometimes the answers given by respondents do not show the actual situation.

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