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Analysis of Factors Affecting the Achievement of Long Jump Skills of Students of SD Negeri 05 Kikim Timur

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Abstract: This study aims to analyze the factors that influence the long jump achievement of Elementary School 05 Kikim Timur students. This study uses a quantitative approach with an ex-post facto research design. This research was conducted at Elementary School 05 Kikim Timur. The sample used was 22 grade 5 students. Data collection techniques used a scale. The data analysis technique uses the normality test. Test the hypothesis using the t-test, and statistical hypothesis using t-test. Based on hypothesis testing with the Independent Sample t-Test at speed t count 3.742 > t table 1.682, agility t count 4.253 > t table 1.682, and power t count 4.321 > t table 1.682. The conclusion from the research conducted was that the average gross motor skills of grade 5 students at SD Negeri 5 Kikim Timur using the traditional long jump game were better. So that traditional games have an influence on students' gross motor skills.

Keywords: Achievement, Long Jump Skills, Traditional Game

A. Introduction

Extracurricular athletics held at SD Negeri 05 Kikim Timur include running, crank and long jump (Kim & Bastedo, 2017). According to the observations of researchers, students participating in the long jump extracurricular at SD Negeri 05 Kikim Timur in doing long jumps, footsteps when doing the start and pedestal look still wrong. The contributing factor is that the speed of students' footsteps in performing the prefix technique is not the same, thus affecting the accuracy of the feet when performing pedestals on the reject board which has an impact on the less-than-optimal distance from the repulsion results.

The reality in the field cannot be denied that long jump is little delivered because students will prefer other sports because long jump in their opinion is less interesting, especially if physical education teachers teach monotonously and lack variety. This will affect the value of long jump practice. The same happened to the students of SD Negeri 05 Kikim Timur. This causes that the results of the practice scores obtained for long jump material are still below the Minimum Completion Criteria.

Based on the results of grade 4 students of SD Negeri 05 Kikim Timur. To improve learning outcomes so that students' grades achieve school goals, namely learning outcomes in accordance with KKM, a physical education teacher must be more creative and innovative in the learning process. The results of the long jump are less than optimal, causing achievements at SD Negeri 05 Lahat, especially extracurricular athletics, the long jump number has so far been low. Therefore, this study was conducted in the school with traditional games such as jumping rope and *engklek*, which are expected to improve long jump achievement.

Athletics is one of the oldest sports and is also considered the parent of all sports (Keegan et al., 2009). Athletics is a sport consisting of running, walking, jumping, and throwing numbers. To be able to perform long jump movements, students must master the techniques of starting, pedestal, hovering in the air and how to land. This in the long jump technique is the same, what distinguishes it is when the body is floating in the air. *Power* in a jump is a factor in determining the distance of the jump. So, to increase power when jumping, muscle strengthening exercises are needed because *power* is one of the important elements to achieve maximum performance.

Developing jumping skills can be done with a wide variety of exercises. Training to achieve good and correct long jump motion, besides that there are other factors that determine the maximum long jump results are running speed at the beginning and leg muscle strength when focusing. According to researchers, the running speed at the start will give a maximum boost when it will focus. Teachers must know the characteristics of elementary school students, especially grade 5, they still tend to transition from kindergarten to further education, namely elementary school. The object to be studied in this study is grade 5 students, therefore teachers must be able to develop effective learning, able to make students more enthusiastic, actively follow the learning process to completion. The learning process must be made so that students are more interested, happy, excited, it will be effective to spur the spirit of movement. Feelings of pleasure and joy will arise in students when invited to play.

There are several ways to improve the achievement of SD Negeri 05 Lahat students, one of which is through regular and programmed exercises. Exercise does not have to be with weights that can weigh on the protégé, but it should also be fun. One of them is by long jump. Some long jump games are jumping rope and *engklek.* The choice of this game is because it uses more feet, so it is hoped that given this game for 16 meetings can improve long jump ability.

Given the positive impact of jumping rope and *crank* when viewed from the value and shape it can not only affect the physical freshness of students, it is hoped that teachers will be able to teach traditional games not only games in sports, because with this game children will get games that can help refresh their physical fitness and health.

But in reality, what happens now this game no longer exists or is rarely played by children, not many children want to play chase, wars, hide and seek, and others. Even physical education teachers rarely teach this game.

Starting from the background of the researcher above, the formulation of the problem in this study is as follows: (1) What factors influence the achievement of long jump rope skills on the motor skills of students of Elementary School 05 Kikim Timur? (2) How to improve the achievement of long jump rope skills on the motor skills of students of Elementary School 05 Kikim Timur?

Based on the formulation of the problem, there are goals that researchers want to achieve as follows: (1) Analyze factors-what factors influence the achievement of long Jump rope skills on the motor skills of students of Elementary School 05 Kikim Timur (2) Analyze how to improve the achievement of long jump jumping rope skills on the motor skills of students of Elementary School 05 Kikim Timur

B. Methods

Before stepping into the t-test, there are requirements that must be met by researchers that the data analyzed must be normally distributed, for that it is necessary to carry out a normality test, namely through a prerequisite test of data normality test. The normality test is carried out with the aim of knowing whether the data in the study is normal or not. The technique used for normality testing is to use *Kolmogorov-Smirnov* (KS). If in the *Kolmogorov-Smirnov* (KS) test has a value smaller than the significance level of 5% or can be written if $p < 0.05$ then the data is normally distributed. The calculation of the normality test in this study was carried out with the SPSS For Windows 16.0 Series program with the results of significance for the scale of parental roles on interest and motivation of 0.503, while in athletes who participated in extracurricular activities the significance was 0.510, so that the data distribution of the two variables could be expressed as normal distribution.

Then perform a partial hypothesis test (t test). Partial hypothesis test according to Sugiyono (2017) is used to determine the influence of each independent variable on the dependent variable. This test is performed by comparing the calculated t value with the table t value. The t-test is a method of hypothesis testing in which the samples used are the same, but obtain two data. The calculated value can be seen from the results of data processing in the *Coefficients* section of the SPSS program version 23.0. Hypothesis testing compares the mean between group 1 (pretest) and group 2 (posttest). If the value of t is calculated < from t table, then Ha is rejected, if t count is > greater than t table then Ha is accepted, with a significance level of 5% (real level $\alpha = 0.05$) with a confidence level of 95%. Obtained are expressed in the form of descriptive data and t-test calculation results.

C. Results and Discussion

Research on the traditional long jump game conducted had an influence on the gross motor skills of grade 5 students of Elementary School 05 Kikim Timur. Research that has been carried out produces the following data. The t-test aims to find out the hypothesis designed, which is to find out how much influence variable X or independent variable has on variable Y or the dependent variable. If the sample is paired or has a relationship, for example comparing learning outcomes/motor skills in the before and after classes *treatment*, or comparing two groups that include a control class and an experimental class, then using a *t-test*.

The t-test used is an *independent sample t-test*. Before the t test is carried out, a normality test is first carried out to determine whether the data observed or taken from the population has a normal distribution or not. The normality test is useful for determining whether the data that has been collected is normally distributed or taken from a normal population.

The *post-test* results on both traditional games were tested to determine whether the application of traditional long jump games and whether it had an effect on gross motor skills tests of speed, agility, and limb *power* in grade 5 students of Elementary School 05 Kikim Timur.

The normality test of speed is, the jumping rope game Sig 0.266 > 0.05 and the *crank* game Sig. 0.728 > 0.05 which means that the research data is normally distributed and can be continued for the t test. The results of the *speed t-test* are presented in the following table:

Table 1. Speed t-test Test Results

Game	N	Mean	T	Df	Sig
Jump Rope	22	53,2329	3,742	42	0,001
Crank	22	43,9174			

From the table above, it is known that Sig. (2 tailed) 0.001 < 0.05 means that there is an average difference in the post-test value of the experimental group with the control group. Based on the results of the t-test analysis stated that the count value was 3.742 > table 1.682, referring to the t-distribution criticism table with a significance level of 0.05 with df = 42, there was an influence of *the post-test* results of the experimental group with the control group.

So, it can be stated that the application of the traditional game of long jump has an influence on gross motor speed skills in participants of grade 5 students of Elementary School 05 Kikim Timur. The second traditional game is to measure agility by After

carrying out traditional games in the experimental group, both traditional games were tested for post-test results of agility to determine whether or not there was an influence of traditional games on gross motor skills agility in grade 5 students of Public Elementary School 05 Kikim Timur.

The normality test of agility is, the jumping rope game Sig 0.604 > 0.05 and the *crank* game Sig. 0.059 > 0.05 which means that the research data is normally distributed and can be continued for the t test. The results of the *agility t test* are presented in the following table.

Table 2. *Agility t-test* Results

Game	N	Mean	T	Df	Sig
Jump Rope	22	54,990	4,253	42,	0,000
Crank	22	44,4204			

The results of the table above are known Sig. (2 tailed) values of 0.000 < 0.05 meaning that there is an average difference in the results of the control group's agility posttest with the experimental group. It is known from the t-test table above that the value of t is calculated at 4.253 > t table 1.682, referring to the criticism table of the distribution of t with a significant level of 0.05 df=42. This means that the traditional game of long jump has an influence on gross motor skills, agility in grade 5 students of Public Elementary School 05 Kikim Timur.

The third traditional game is to measure power. After carrying out the traditional games of jumping rope and *crank* in the experimental group, both classes were tested for post-test power results to determine whether or not there was an effect of the traditional long jump game on gross motor skills *power* in grade 5 students of State Elementary School 5 Lahat.

The normality test of power is, jumping rope game Sig 0.134 > 0.05 and crank game Sig. 0.067 > 0.05 which means that the research data is normally distributed and can be continued for the t test. The results of t power are presented in the following table.

Table 3. Power t-test

Game	N	Mean	T	Df	Sig
Jump Rope	22	49,9505	4,321	42,	0,000
Crank	22	61,1896			

The results of the table above are known Sig. (2 tailed) values of 0.000 < 0.05 meaning that there is a difference in the average results of the *control group's posttest power* with the experimental group. It is known that the t test obtained a calculated value of 4.321

> table 1.682, referring to the criticism table of the distribution of t with a significant level of 0.05 df=42. This means that the traditional game of long jump has an influence on gross motor skills, *power* in grade 5 students of State Elementary School 5 Lahat.

Based on the results of the *t-test* in the control group and experimental group from the three gross motor skills obtained count > table, the formulation of the problem that has been made has been resolved, namely there is an influence and improvement in traditional game training on the motor skills of students of SDN Krajan 1. In gross motor skills, power is also better when using traditional long jump games. Based on the results of this study, traditional long jump games can optimize students' gross motor skills, meaning that the more often students are given fort and jump rope game exercises, it will increase children's development in the field of gauze motor (Kamaruddin et al., 2023).

Long jump is a game that is played in teams, because this game requires cooperation between teams to complete challenges in game (Sari et al., 2021). Long jump games also require agility and running speed, and a good strategy to structure the game. Long jump games are very well applied in improving students' gross motor skills, because each team member must run and jump (Palisano et al., 2008). By implementing long jump games, students must actively move and run because they must stimulate gross motor development in students (Irawan et al., 2021).

Long jump games are traditional games that will make students stronger, healthier, fitter, and certainly can increase *power*. Moreover, also students' social and emotional development will develop well (Breivik, 2010). There are several skills that students must have in playing long jump, namely readiness to jump, jump, and maintain balance when returning to the ground.

Students who are able to do the game well, then they have good power abilities as well. Physical learning activities in the classroom in improving students' gross motor skills require an interesting learning model that students love (Lengel & Kuczala, 2010). Traditional long jump games play a very important role in developing students' gross motor skills because they participate in physical activities, such as running, jumping, and others (Oktavia & Sutapa, 2020).

The traditional game of long jump is a game favored by elementary school-age children (Adnan et al., 2020). The results of this study have shown that traditional games are more effective in cultivating gross motor skills. In line with previous research that has been done those traditional games can improve students' gross motor skills (Hayati et al., 2017).

D. Conclusion

Exposure from the results and discussion of the study can be concluded that the experimental group has an average better score than the control group. This game supports the gross motor skills of grade 5 students of State Elementary School 5 Kikim Timur with a difference of 11.8391. The use of traditional long jump games turns out to be able to strengthen the muscles in the legs and legs so that students can do running and jumping activities. Based on the results of the research conducted, it is hoped that it can be developed further, with the aim of being a teaching material, having many innovations in choosing teaching methods and as material to be used as the main completeness in meeting learning media in schools. So that the objectives of the learning process can be achieved properly as expected, especially learning to improve student skills by using long jump game media.

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References

Adnan, M., Shaharudin, S., Abd Rahim, B. H., & Ismail, S. M. (2020). Quantification of physical activity of Malaysian traditional games for school-based intervention among primary school children. *Journal of Taibah University Medical Sciences*, *15*(6), 486-494.

Breivik, G. (2010). Trends in adventure sports in a post-modern society. *Sport in society*, *13*(2), 260-273.

Hayati, H. S., Myrnawati, C., & Asmawi, M. (2017). Effect of traditional games, learning motivation and learning style on childhoods gross motor skills. *International Journal of Education and Research*, *5*(7), 53-66.

Irawan, F. A., Sutaryono, S., Permana, D. F. W., Chuang, L. R., & Yuwono, Y. (2021). Locomotor skills: Traditional games in the fundamental of physical activities. *Al-Athfaal: Jurnal Ilmiah Pendidikan Anak Usia Dini*, *4*(1), 1-13.

Kamaruddin, I., Tannady, H., & Aina, M. (2023). The efforts to improve children's motoric ability by utilizing the role of traditional games. *Journal on Education*, *5*(3), 9736-9740.

Keegan, R. J., Harwood, C. G., Spray, C. M., & Lavallee, D. E. (2009). A qualitative investigation exploring the motivational climate in early career sports participants: Coach, parent and peer influences on sport motivation. *Psychology of sport and exercise*, *10*(3), 361-372.

Kim, J., & Bastedo, M. N. (2017). Athletics, clubs, or music? The influence of college

extracurricular activities on job prestige and satisfaction. *Journal of Education and Work*, *30*(3), 249-269.

Lengel, T., & Kuczala, M. (Eds.). (2010). *The kinesthetic classroom: Teaching and learning through movement*. Corwin Press.

Oktavia, S., & Sutapa, P. (2020). Traditional Game based Learning Model to Improve Elementary School Students' Motor Abilities. In *Proceedings of the 3rd Yogyakarta International Seminar on Health, Physical Education, and Sport Science in conjunction with the 2nd Conference on Interdisciplinary Approach in Sports (YISHPESS and CoIS 2019)* (pp. 405-411).

Palisano, R. J., Rosenbaum, P., Bartlett, D., & Livingston, M. H. (2008). Content validity of the expanded and revised Gross Motor Function Classification System. *Developmental Medicine & Child Neurology*, *50*(10), 744-750.

Sari, Z. N., Darmawan, A., Gemael, Q. A., & Kristina, P. C. (2021). ZN Games Model to Enhance Long Jump Skill for Junior High School Students. *Halaman Olahraga Nusantara: Jurnal Ilmu Keolahragaan*, *4*(2), 226-239.

Sugiyono. (2017). *Metode Penelitian Kuantitatif dan Kualitatif dan R & D*. Bandung: Alfabeta.