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GAME TERHADAP MOTORIK KASAR SISWA SEKOLAH DASAR

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THE EFFECT OF SNAKE AND LADDERS GAME MODIFICATION ON GROSS MOTOR SKILLS OF ELEMENTARY SCHOOL STUDENTS

PENGARUH MODIFIKASI PERMAINAN ULAR TANGGA TERHADAP MOTORIK KASAR SISWA SEKOLAH DASAR

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Authors' contribution:A) Conception and design of the study; B) Acquisition of data; C) Analysis and interpretation of data; D) Manuscript preparation; E) Obtaining funding

ABSTRACT This study aims to determine the percentage effect of snakes and ladders game modification on gross motoric of elementary school students at SDN Blimbing 2 Kesamben, Jombang.

This research uses experimental research type pre-experimental design with the form of One Group Pretest - Posttest design. Research data collection activities initial test (pretest) before treatment and final test after treatment (posttest).

The gross motor includes movement activities that produce large muscles such as arm muscles and leg muscles, therefore researchers perform movements and behaviors of control objects that help the core of the general dominant to be measured with the TGMD-2 directly to measure learners coordinate the body and limbs, as long as they perform movements such as running, jumping, stepping, throwing, and kicking.

The results of the analysis of the researcher's test data, and discussion, obtained the overall results of the increase in the influence of the modification of the snakes and ladders game as evidenced by the calculation of the paired sample t-test obtained the results of 10,274, as evidenced by the Sig value. (2-tailed) of $0.000(<0.05)$. This means there is a significant influence of the modification of the snakes and ladders game on gross motor skills of students of SDN Blimbing 2 Kesamben, Jombang.

Keywords: Modification, Basic Movement Skills, Gross Motoric.

Abstrak Penelitian ini bertujuan untuk mengetahui presentase pengaruh modifikasi permainan ular tangga terhadap motoric kasar siswa sekolah dasar di SDN Blimbing 2 Kesamben Kabupaten Jombang.

Penelitan ini menggunakan penelitian eksperimen jenis *pre-experimental* design dengan bentuk *One Grup Pretest – Posttest* design. Kegiatan pengambilan data penelitian tes awal (pretest) sebelum diberikan perlakuan dan tes akhir setelah diberikan perlakuan (posttest).

Motorik kasar meliputi aktivitas gerak yang menghasilkan otot besar seperti otot lengan dan otot tungkai, oleh karena itu peneliti melakukan gerak dan perilaku objek kontrol yang membantu inti dari dominan umum yang akan di ukur dengan TGMD-2 secara langsung untuk mengukur peserta didik mengkoordinasikan tubuh dan tungkai, selama mereka melakukan gerakan seperti berlari, melompat, melangkah, melempar, dan menendang.

Hasil Analisis data tes peneliti, dan pembahasan, diperoleh mendapatkan hasil keseluruhan peningkatan pengaruh modifikasi permainan ular tangga game sebesar dibuktikan dengan perhitungan paired sample t - test diperoleh hasil 10.274, dengan dibuktikan nilai Sig. (2-tailed) sebesar 0,000. Sehingga $0,000 < 0,05$ yang berarti terdapat pengaruh yang signifikan dari modifikasi permaian ular tangga terhadap motorik kasar siswa SDN Blimbing 2 Kesamben, Kabupaten Jombang.

Kata Kunci : Modifikasi, Kemampuan Gerak Dasar, Motorik Kasar.

INTRODUCTION

Motor skills are an individual's ability to develop one's skills with the aim of increasing or accelerating mastery of a skill (Ahadin, 2012: 12). Gross motor development cannot develop automatically even when children grow up, so assistance is needed that can lead to the development of children's gross and fine muscles.

Children's motor development will affect their memory, creativity, performance and imagination. Children's unique characteristics of high levels of curiosity and experimentation allow children to engage in motor-physical exercises with coordinated movements, given this stimulation with the help of a supportive environment. According to Sanoma (Rahyubi 2012: 228). Especially in early childhood, motor development especially in early childhood will be better if the environment of the body and developing children supports free movement.

According to Sumantri (2020: 1.6) Motor development is a process of a child to skillfully learn to move the correct limbs. In general, children's motor development is divided into 3 stages, namely cognitive, associative, and autonomous. Children's physical growth is expected to be optimal because it affects whether or not it can be seen from the child's daily behavior. the development of the body directly provides its motor abilities. Therefore, the growth of a child's physical or motor abilities can affect the way they view themselves and others.

According to (Murano, 2015: 42) Locomotor basic movement skills can also be understood as actions that work on all parts of the body at the same time, and can affect future movement skills more than basic movements. In addition, fundamental movement is the basis for the development of practical skills in various activities and physical activities throughout life. The development of fundamental movements is then influenced by maturity, task demands, and environmental factors. Basic actions are usually divided into three types of actions, non-motor actions and manipulation actions.

The basic movements of children aged 7 - 10 years include the characteristics of early childhood character development, the cognitive development of students is still in a stage of rapid development, in cognitive abilities children can already think of their own parts. With the development of society, children begin to break away from their parents' power. This can be shown by children's desire to always play in the neighborhood and spend time with their peers. Ages 7 - 10 begin to enjoy social play. Characters such as children's emotions have begun to form, and some children's characters have emerged. Usually children aged 7-10 years are essentially in the process of formation, the child's experience has actually been influential. Children aged 3-5 years can already perform activities that use gross motor skills. Between the ages of 5 and 8, the child's physical development usually increases, and maturity is reached, and the child is able to control his or her body and balance.

According to Kadek (2016: 76) Locomotor Motion is a movement that can be characterized as a change in position, such as walking, running, jumping, and rolling. This action is often fun for children. This kind of physical activity can be used as a game, allowing students to walk, run, turn over, etc. without realizing According to children and adults, most hobbies are based on childhood experiences. The primary education stage can be seen from the early period that determines the development and movement of the body, and plays an important role in the formation of quality individuals in the future.

According to (Yulingga, 2015: 64) Locomotor is the definition of basic non-locomotor movements Non-locomotor movements are activities that move the limbs on their axis and the actors do not move places (Yulingga, 2015: 64). Basic movement skills are skills that involve the big brain, muscle strength involving the arms and legs that are used to achieve an exercise or movement goal, such as throwing a ball, jumping, or jumping through water movement, or maintaining balance (Syahrial Bakhtiar, 2015: 8). To achieve these goals, students with the help of a teacher must be able to absorb knowledge about sports provided by the teacher through learning about movement. In addition, children must be able to get used to exercising outside of sports lessons. By getting used to exercising, students naturally learn motion.

According to Sumantri (2020: 1.4) gross motor is a possibility of movement that can be done by all limbs. At the same time, motor development can be called the development of elements of maturity and control of body movements. Therefore, every movement, even the simplest part, is actually the acquisition of a good pattern of interaction between one part of the body and the system controlled by the brain. If children move a lot, it is even more beneficial if they have better control over their motor movements. Children become more confident doing any activity that they know is within their physical capabilities. They like to play with friends because they can follow their friends' movements, such as jumping, running and walking.

Physical education is the beginning of a systematically planned education that utilizes physical activity and a systematic plan to improve individuals organically, neuromuscularly, perceptually, cognitively, socially and emotionally (Depdiknas, 2004: 5). Physical education means

that children must understand the basic movements of walking and running. The basic movements of running and walking are to improve the quality of basic movements performed in everyday life. Educators can give good direction on basic running and walking techniques and give examples. This activity invites children to run, walk and jump for approximately 10 minutes using the obstacles provided.

Physical Education is a means of encouraging the development of motor skills, physical skills, knowledge, reasoning, values (attitudes, mental, emotional, spiritual, social) and healthy lifestyles. Meanwhile, the presence of PJOK subjects is still underestimated and considered not important compared to other subjects. (Kristiandaru, 2012: 21).

According to (Tangkudung, 2017: 100) Physical activity is a process of learning physical activity to improve students' affective, psychomotor, social and cognitive abilities. Taking physical education classes requires students to acquire basic skills. Basic skills in children aged 3 - 10 years. This test is suitable for elementary school students aged 7 - 10 years to recognize and train basic locomotor (throwing, catching, kicking) and motor movements (walking, running, jumping) as simple games tailored to their abilities.

MATERIALS AND METHODS

This study uses a quantitative approach, the treatment in this study uses Pre-Experimental with a one group pretest-posttest design is a design that has a pretest, before being given treatment so that the results of the treatment can be known more accurately, the study used the TGMD-2 test using Sum Off Gross Motor Quetion. The population used by SDN Blimbing 2 Kesamben Jombang students totaling 34 students. Criteria: aged 7 - 10 years. Gross motor instrument Gross Motor Quentiont, and TGMD - 2 Test using Sum Off Standart Score and Age Equivalent. Data analysis using percentage with data analysis technique to analyze experimental data with post-test design model is to use t-test.

RESULTS AND DISCUSSION

The results showed the effect of Snake and ladders game game modification on gross motor skills of elementary school students at SDN Blimbing 2 Kesamben with the following gross motor quetion values:

Tabel 1 The result of Prettest

No	Student's Name	Score
		Prettest
1	IFTITA RAISA	65
2	KEYSHA NUR AZIYAH	73
3	KHALFANI RAFFI	67
4	MUHAMMAD ARKAN	67
5	MUHAMMAD ILYASA	51
6	NAZWA KHAIRA	61
7	QIYANA ARABELLA	59
8	SETIA AYUNINGSIH	57
9	DANTE ANDRYAN	73
10	DIMAS DAFA IBNU	65
11	ELYS NAFISA	76
12	FATHAN FERDINAND	78

13	FRINDAH AURA	77
14	IBNU ALDI RIFKI	63
15	KHARISMA BILLA	64
16	LAILATUL KHUSNA	65
17	MUHAMMAD REHAN	61
18	MUHAMMAD ALIF	65
19	PUTRI SYABITA	68
20	SULTAN ANDIKA	65
21	ANGGER DIAN	64
22	AQIL APRILLEO	57
23	AXCEL FAEZA	64
24	CHINTIA RANITA	69
25	DESIANA ANA	62
26	MUHAMAD RAIHAN	60
27	ROHMA NUR	53
28	SELA NOVITASARI	57
29	SEPTYANO CHANDRA	75
30	ZHAHIRA EL MAHFUD	46
31	AIRLANGGA APRILIO	60
32	YUMNA FADILAH	63
33	MOKHAMMAD RIZKY	64
34	RAHMAD REZA	71
	TOTAL	**2.185**

Description:

The results of the research analysis of students' gross motor pretest are as follows:
The number of gross motor test scores from 34 students the overall score obtained: 2,185 so that the pretest research results from the action test in learning basketball dribble can be taken on average as follows:

$$M = \frac{\Sigma d}{n}$$
$$M = \frac{2.185}{34}$$
$$M = 64,3$$

Description :

M = Mean (rata-rata)

Σd = The amount of data in the distribution

N = Number of individuals

Based on the results of the gross motor pretest contained in table 4.2 for students in grades 1 - 3 of SDN Blimbing 2 Kesamben, the average value (mean) was 64.3.

Tabel 2. The result of Posttest

No	Student's Name	Score
		Posttest
1	IFTITA RAISA	70
2	KEYSHA NUR AZIYAH	76
3	KHALFANI RAFFI	71
4	MUHAMMAD ARKAN	72
5	MUHAMMAD ILYASA	73
6	NAZWA KHAIRA	75
7	QIYANA ARABELLA	80
8	SETIA AYUNINGSIH	70
9	DANTE ANDRYAN	76
10	DIMAS DAFA IBNU	73
11	ELYS NAFISA	82
12	FATHAN FERDINAND	82
13	FRINDAH AURA	81
14	IBNU ALDI RIFKI	86
15	KHARISMA BILLA	80
16	LAILATUL KHUSNA	83
17	MUHAMMAD REHAN	86
18	MUHAMMAD ALIF	79
19	PUTRI SYABITA	80
20	SULTAN ANDIKA	85
21	ANGGER DIAN	79
22	AQIL APRILLEO	79
23	AXCEL FAEZA	83
24	CHINTIA RANITA	80
25	DESIANA ANA	81
26	MUHAMAD RAIHAN	83
27	ROHMA NUR	88
28	SELA NOVITASARI	85
29	SEPTYANO CHANDRA	86
30	ZHAHIRA EL MAHFUD	85
31	AIRLANGGA APRILIO	80
32	YUMNA FADILAH	84
33	MOKHAMMAD RIZKY	80
34	RAHMAD REZA	89
TOTAL		**2.722**

Description:

The results of the research analysis of students' gross motor posttest are as follows:
The number of gross motor test scores from 34 students the overall score obtained: 2,722 so that the pretest research results from the action test in learning basketball dribble can be taken on average as follows:

$$M = \frac{\Sigma d}{n}$$
$$M = \frac{2.722}{34}$$
$$M = 80$$

Keterangan :
M = Mean (rata-rata)
Σd = The amount of data in the distribution
N = Number of individuals

Based on the results of the gross motor posttest contained in table 4.3 for students in grades 1 - 3 of SDN Blimbing 2 Kesamben, the average value (mean) is 80.

a.   **Normality test**

To determine whether the data distribution of each variable is normal or not by looking at the results of the significance, if the calculated significance> 0.05, the data is declared normally distributed residuals. If the significance value <0.05, then the residual value is not normally distributed.

Tabel 3. The result of Normality test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		34
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	7.27067013
Most Extreme Differences	Absolute	.133
	Positive	.133
	Negative	-.081
Test Statistic		.133
Asymp. Sig. (2-tailed)		.137[c]

Based on the results of the normality test, it is known that the significance value is 0.137> 0.05, it can be concluded that the residual value is normally distributed.

b.   **Homogeneity test**

The homogeneity test serves to show that the elements of the research sample are indeed homogeneous (the same, similar) or inhomogeneous. In this study researchers used the Levene Statistic SPSS 25 analysis technique. If the significant value> 0.05, then the distribution is homogeneous. If the significant value <0.05, then the distribution is not homogeneous.

Tabel 4. The result of Homogeneity test
Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
VARIABEL	Based on Mean	1.796	1	66	.185
	Based on Median	1.749	1	66	.191
	Based on Median and with adjusted df	1.749	1	57.103	.191
	Based on trimmed mean	1.814	1	66	.183

Based on the Homogeneity test results, it is known that the significance value is 0.185> 0.05, it can be concluded that the residual values vary homogeneously.

c.   **Paired Samples T- Test**

The Paired Sample T Test is a test used to compare the difference between the two means of two paired samples assuming the data is normally distributed. Paired samples come from the same subjects, each variable is taken during different situations and circumstances.

Table 5 Paired Sampel T - Test

Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretest - Postest	-15.79412	8.96383	1.53728	-18.92175	-12.66649	-10.274	33	.000

Based on the table above, the Sig value is obtained. (2-tailed) of 0.000. So. it can be concluded that there is a difference or influence before and after the modification of the snakes and ladders game.

DISCUSSION

Based on the results of the research that has been carried out, namely the activities of modifying the snake and ladders game game which include running (Run), horse jumping (Gallop), one-legged jump (Hop), Long Jump (Leap), Horizontal Jump (horizontal jump), Side step (Slide), striking a stationary ball (striking a stationary Ball), stationary dribble (stational lavel Dribbel), catching the ball (Catch), kicking (Kick), Overhand Throw, Rolling the ball from under the hand (Underhand Roll).

Gross Motor for children is a basic movement skill that becomes the foundation for children to carry out various movement activities. Gross motor is the ability of manipulative movements that are developed when children perform objects such as throwing, pushing, hitting, catching, bouncing, on the TGMD-2 test. Gross motor is measured through a variety of locomotor and manipulative movements (control objects) which are summed up from the Sum Off Standart Score (SOSS) value and the Quotient value obtained is the value that will be used to measure gross motor in children.

This illustrates that the overall ability of students is above average in other words the ability of students is in the middle but tends to be lacking. But the way each individual learns is not the same, they all have different abilities, there must be those who have advantages and weaknesses. This illustrates that the overall ability of students is above average in other words the ability of students is in the middle but tends to be lacking. But the way each individual learns is not the same, they all have different abilities, there must be those who have advantages and weaknesses.

1. **Treatment Description Session One Game Modification**

   In the treatment phase, the first session was conducted on Tuesday, May 16, 2023 starting at 07.00 WIB until completion. In this session the subject was given a modified snake and ladders game game and paper with challenges. The subject was very happy when he was given the challenge of the snake and ladders game game so that it made it easier for researchers when carrying out activities to deliver TGMD - 2 material.

2. **Treatment Description Session Two Game Modification**

   In the treatment phase, the second session was conducted on Tuesday, May 23, 2023 starting at 07.00 WIB until completion. In this session the subject was given a modified

snake and ladders game game and paper with challenges. The subject was very enthusiastic in participating in the session in playing the snake and ladders game, making it easier for researchers to carry out activities to deliver TGMD -2 material.

3. **Treatment Description Session Three Game Modification**

In the treatment phase the third session was conducted on Tuesday, May 30, 2023 starting at 07.00 WIB until completion. In this session the subject was given a modified snake and ladder game and paper with challenges. The subject was very enthusiastic in participating in the session in playing the snake and ladder game so that it made it easier for researchers when carrying out activities to deliver the TGMD - 2 meter.

4. **Treatment Description Session Four Game Modification**

In the treatment phase, the fourth session was conducted on Tuesday, July 6, 2023, starting until completion. In this session the subject was given a modified snakes and ladders game and paper with challenges. The subject was very enthusiastic in participating in the session in playing the snakes and ladders game so that it made it easier for researchers when carrying out activities to deliver the TGMD - 2 meter.

5. **Description of Game Modification Posttest Session**

The first session of TGMD - 2 measurement was conducted on Tuesday, June 13, 2023 starting at 07.00 WIB until completion. In the first session the subject looked excited when he was going to do the snake and ladders game game activity, then the subject invited the researcher to talk that the subject and others were waiting for me in the field and ready to do the assessment.

So the results of the study of the Effect of Modification of the Snakes and Ladders Game on Gross Motor Skills of students of SDN Blimbing 2 Kesamben Jombang have an influence and an increase so that the hypothesis is accepted. It can be concluded that the Posttest value on gross motor skills of students of SDN Blimbing 2 Kesamben Jombang who managed to get a Very High Gross Motor Quetion Score> 130 there were 2 students and the number of Gross Motor Quetion Average - 90 - 110 there were 18 students. This is also evidenced by the calculation of the paired sample t - test obtained the results of 10,274, as evidenced by the Sig value. (2-tailed) of 0.000. So that 0.000 <0.05. Thus, from the dependent variable in the experimental class which was given the snake and ladders game game treatment, it can be interpreted that there is an influence on the training results between the pre-test post-test.

Games play an important role in physical education. This is not because of the child's puberty over time. But it also has an overall potential value. As part of sport, intelligent learning and development. One of the games that can help students' learning and development is the snake and ladders game game. This game has challenges that must be carried out on students, so that this game can affect the gross motor skills of elementary school students.

CONCLUSION

Based on the results of the analysis of the researcher's test data, and discussion, it can be concluded that the level of Gross Motor Skills of students at SDN Blimbing 2 Kesamban Jombang using the snake and ladders game game gets the overall result of an increase in the influence of the modification of the snakes and ladders game as evidenced by the calculation of the paired sample t - test obtained a result of 10,274, with a proven Sig value. (2-tailed) of 0.000. So that 0.000 <0.05.

From the research on the age of students, based on the results of the gross motor test, it can be interpreted that there is a significant effect of the modification of the snakes and ladders game on the gross motor of students of SDN Blimbing 2 Kesamben, Jombang Regency which can be seen

from the results of the Pretest and Posttest which have changed. Therefore, researchers provide snakes and ladders games that have challenges that use the mind and movements that require coordination between hands, feet, and mind.

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Syahrial (2011: 62) yang mengatakan bahwa Kebugaran jasmani adalah "Sebagai kemampuan tubuh untuk melakukan kegiatan fisik maupun.