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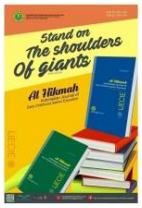

The Effect of Physical Fitness Exercises on The Gross Motor Ability of Children Aged 5-6 Years

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A B S T R A C T

Exercises aimed at improving physical fitness are crucial for kids' gross motor skill development. The gross motor movements of children aged 5 to 6 were found to be relatively low based on observations made at the Darma Wanita Kindergarten in Jantho City. This was due to the child's inability to practice body movements that connect large muscles to themselves or to train gross motor skills. The purpose of this study is to determine the impact of physical fitness activities on the gross motor skills of children enrolled in the Darma Wanita Kindergarten in Jantho City who are between the ages of five and six. "Quasi-experimental with a pretest-posttest control group design" is the type of experimental design research methodology used in this study, which is quantitative in nature. 35 children from classes B1 and B2 made up the population. In this study, two classes were used: class B2 served as the experimental class and class B1 served as the control class. In this study, the methods of observation and documentation were employed for data collection. The T test and the normalcy test were then used for data analysis. The data analysis results in this study demonstrate that the students' scores on the three developed indicators differed before and after treatment. The results of the pre- and post-tests indicate, based on computations using the t test and the normality test, that physical fitness exercise activities have an impact on the development of the gross motor skills of children in the Darma Wanita Kindergarten in Jantho City who are between the ages of five and six. When children aged 5 to 6 receive training in physical fitness exercises, their gross motor movements at Darma Wanita Kindergarten in Jantho City improve more significantly.

INTRODUCTION

WhichIt is said that children aged 0-6 years are children of the golden age. At this age, more attention must be paid to shaping their character and personality. Usually the age of 0-6 years is called the golden age. There are six aspects of child development, including, (1) (NAM), (2) gross movement, (3) artistic development, (4) language, (5) cognitive, (6) social) (Faizatul Faridy, Widia Wati, 2023).

Children's education is defined as knowledge that focuses on all aspects of children's growth and development with the ultimate aim of improving children's overall development. From the time a child is born until the age of six, the level of education before primary school provides knowledge that can provide and support him so that he is able to continue to the next stage (Khaironi, 2017). This age is the period with the greatest learning potential, where children from birth to six years old can learn everything more easily than adults, which means that

everything that children see or feel can immediately be captured in their minds (Faizatul Faridy, 2022).

Exerciseis a sport that can help optimize children's growth and development.Physical fitness is exercise that can train large muscle movements in early childhood. Strength, speed, agility and balance are elements of physical fitness where through these movements, children can train their physical motor skills from an early age. Gymnastics is a light sport and is often participated in by everyone as part of their daily activities. Modern fitness exercises can also maintain everyone's immune system and can stretch muscles that have not been moved for a long time. Physical fitness exercises are usually accompanied by music to make children more interested in doing or moving their muscles (Ulfah, 2021). There are various kinds of exercises that are usually carried out by teachers in any school, the exercises that are taught are exercises that are carried out through rough physical movements which are easy to do and when done make the exercise followers feel happy, namely 1) exercises that use music, 2) floor exercises 3), brain exercise, 4) aerobic exercise and many other exercises that are fun to do, most people like exercises that use songs. Where this activity can make children learn more about brain power, movement patterns and so on (Galih Dwi Pradipta, 2017).

Furthermore, "Physical fitness focuses on the relationship between the characteristics of the body, such as the ability of muscles, blood vessels, lungs and the ability of the heart, to function well and in line with the goals achieved, the ability of the body and organs to function efficiently and effectively recognize the functions of the human body based on the benefits of the kidneys, heart, liver, lungs, central nervous system, joints, muscles, skin and body fluids. Physical fitness refers to the state of health, ability and physical ability to work well, feeling tired. Therefore, physical strength is the most important asset for carrying out daily tasks as needed (Students & LUBUKLINGGAU, 2018).

Basically, if someone's personal health decreases, it will also have an impact on the activities they carry out in their daily activities. So when someone is in poor physical condition, they can experience problems during learning activities, which will affect their learning success. And if a person has good physical health then he can carry out physical activities well when facing the burdens of his daily life (Azizil Fikri, 2018).

Based on the results of initial observations on January 2 2024, Darma Wanita Kindergarten, Jantho City, is a kindergarten in Jantho City, Aceh Besar Regency, but the gross motor development of children in this kindergarten is still underdeveloped, because gross motor activities for children are less interesting and less varied. The only activities carried out are playing outdoor activities such as swings, slides, etc. provided by the school. Gymnastics is a sport that can develop gross motor functions in children. There are various types of gymnastics, one of which is physical fitness gymnastics, this physical fitness gymnastics can train children's gross motor skills so that their motor skills develop according to their development, gymnastics is very useful in developing children's physique, building body strength, training children's motor skills and maintaining balance. Gymnastics is light exercise that can be done every day to improve children's health and physical development. Motor skills develop differently in each child, usually gross motor skills in children are less developed where children do not want to move their large muscles.

Lack of body activity using large muscle strength in children can make gross motor activities less developed. Using gymnastics methods as a medium is an activity that is beneficial in developing body movement skills in children. The exercises carried out include movements that can train children's motor skills, such as walking in place, jumping, and so on. So this exercise method is very effective when forming children's gross motor activities.

Physical activity is the formation of skills that involve physical activity, which means that the child himself can carry out his abilities when carrying out physical movements that involve large muscles on his own. The word motor refers to mechanical and biological factors that can influence movement. The meaning of movement refers to the changes that actually take place in a person's body. In other words, motor skills are a person's innate ability to change different positions in their body using large muscles. Examples of motor skills that use large muscles in a person are people moving their arms and walking. Having good gross motor skills will make you children can adapt to their environment and can develop better mentally (Rudiyanto, 2016).

Physical motor skills are skills in using the large muscles in the body so that the body is free to move as desired. Physical development is said to be successful if the child is able to jump, climb, run, ride a hoop and use one leg to stand. In training skills in the form of movement, children can be taught how to climb, jump, run, and stand by using one leg to stand (veryawan, 2022). There are several aspects that inhibit children's motor movements, one of which is the use of the nervous system which is the first part that can inhibit children's movements. Then there is the child's environment which also plays an important role in the influence of movement on the child. Apart from that, there are several processes, namely, 1) overweight in children, 2) lack of physical exercise, 3) lack of support from people closest to them, 4) poor physical condition and 5) lack of movement in the body (Aida Farida, 2016).

The success of children in movement activities that use gymnastics is also supported by Tsalika and Magfirah's research (2020) on rhythmic gymnastics activities carried out, this gymnastics uses songs that can make children enthusiastic in doing body movements which can be interpreted as rhythmic activities in gymnastics that optimize skills. basic movements. Syafril (2020), this research explains that there are two ways to train children's development. The first is to encourage them to move according to the child's wishes, then during the activity, if there is a mismatch, they can correct it. Research by Novita Sari (2019) argues that playing is an activity that makes children happy, playing using tools can make children more focused on what they are doing, so it can be interpreted that playing activities using games that use tools, namely the hula hoop, can increase body movement when children play it. .

Physical motor skills during this research will be developed in line with movement ability indicators involving children's gross motor skills, and the results of the PAUD unit learning assessment consist of elements of identity with a description that children are able to use their functions which can develop motor skills to explore and manipulate various objects and environment as a form of self-development.

In connection with the problems above, the aim of this research is to see the effect of children's physical fitness activities in training physical activities at Darma Wanita Kindergarten, Jantho City. This research is different from other studies, namely: (1) physical

fitness training is used in this research (2) the nature of the research is experimental, and (3) and the location of the research.

METHODS

This research uses quantitative methods to measure the effect of educational interventions on children's behavior. This research uses a quasi-experimental experimental design with a pretest-posttest control one group design. When obtaining data, it is compared by objectives, the data is managed and analyzed based on the research objectives, and conclusions are drawn from the results (Rani Puspa Juwita, 2022). The two classes used consisted of 17 children in the control class and 18 children in the experimental class. Of the 35 children in the population, the experimental class received three treatments and the control class did not receive any treatment. The normality test then the t test is used by the data analysis technique, while observation comes first then documentation is the end of the data collection technique.

RESULT

The pretest was carried out to determine the effect of physical fitness exercises before receiving treatment in the form of physical fitness exercises on gross motor movement skills carried out in class B consisting of 35 children at Darma Wanita Kindergarten, Jantho City, and a post-test to determine the effect of fitness exercises physically after receiving treatment in the form of physical fitness activities for the child's gross motor skills, where the implementation is given directly by providing gymnastic movements. This movement is used to determine the magnitude of the gross motor effect after receiving treatment, namely gymnastics activities.

Table 1. Data from pretest and posttest results for Control Class

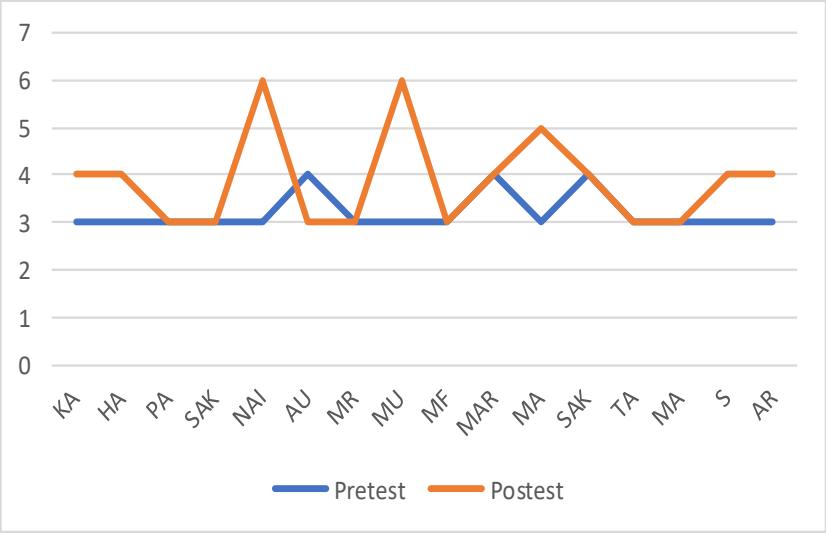
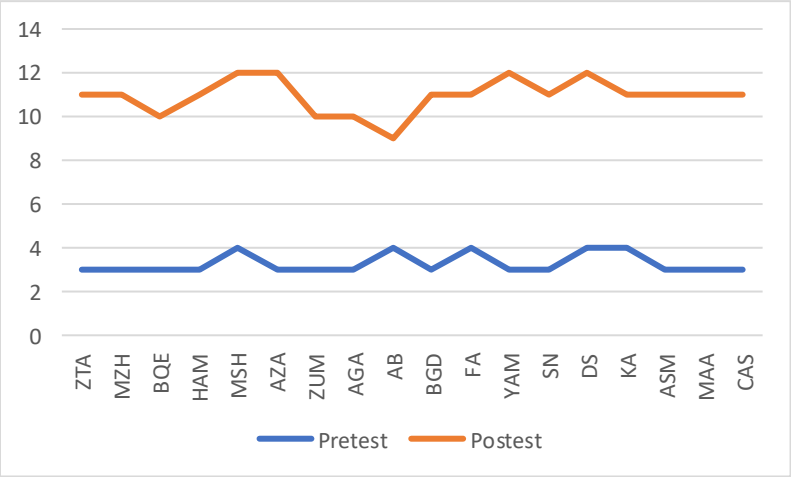
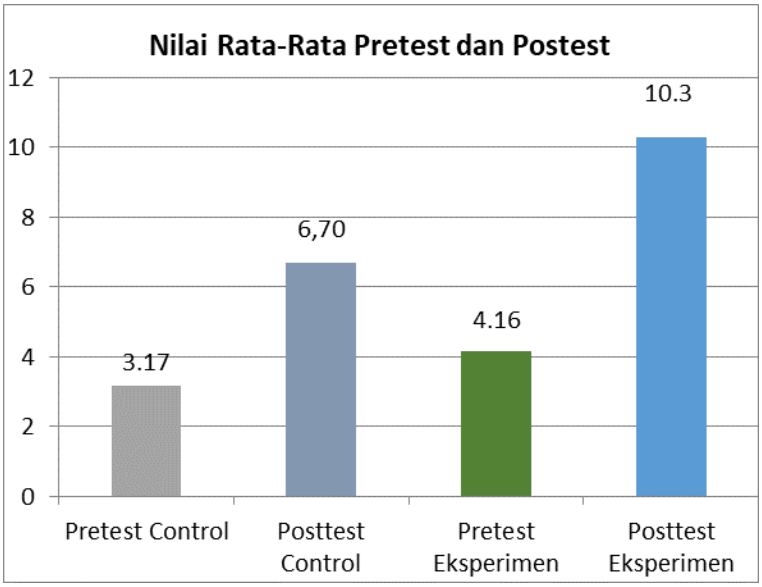


Table 2. Data from experimental pretest and posttest results





Based on table 1.1 which was carried out on 17 children, the Pre-Test control class before being treated with physical fitness activities obtained an average score = 3.17. In the control class who did not receive treatment, they obtained a Post-Test score with an average of = 6.17. It can be concluded that there is a slight influence of physical fitness exercises on gross motor skills in children in class B1 or control class. Based on table 1.2, which was carried out on 18 children, in the experimental class, the pre-test, which was an activity before the treatment was given to children in physical fitness exercises, obtained an average score = 4.16. and in the Post Test class that had received treatment, an average score of = 10.3 was obtained, which means that with exercise there was an influence of physical fitness exercise on the gross motor skills of children in class B2.

The normality test is used to see whether data results from samples have a normal distribution or an abnormal distribution. If the normal distribution can meet the requirements for a significance value > 0.05. So, to see the normality of the research data, use the normality test to find out whether the data is abnormally or normally distributed

Table 1. btaining data from normality tests from the control class before and after without treatment in physical fitness activities on children's gross motor skills

N			17
Normal Parameters	Mean		.0000000
	Std. Deviation		1.04653624
Most Extreme Differences	Absolute		,326
	Positive		,326
	Negative		-.347
Statistical Tests			,326
		Upper Bound	,968

Table 2. The results of the normality test for the experimental class before and after being given treatment on children's gross motor skills during physical fitness training before and after being given treatment.

N			18
Normal Parameters	Mean		.0000000
	Std. Devotion		.80158215
Most Extreme Differences	Absolute		,278
	Positive		,240
	Negative		-.278
Statistical Tests		Upper Buound	,862

The control class obtained a score of 0.968 on the Kolmogorov-Smirnov pre-test and post-test tables after and before carrying out physical fitness activities, according to the data in table 2.1. Data can be concluded to be normally distributed if the sig value is > 0.05. The data depicts the regular distribution of pre- and post-test results obtained before and after carrying out physical fitness training activities. The pre-test and post-test Kolmogorov-Smirnov class scores in the experiment before and after carrying out physical fitness activities were 0.862 where 0.862 > 0.05 based on table 2.2. From this it can be concluded that the data is normally distributed. In this case, the data collected is regularly distributed both before and after treatment.

After using the normality test, the next thing to do is use the T test to prove the hypothesis proposed by calculating the t-test, where physical fitness exercises are carried out to see the emergence of the effects of the child's gross motor skills.

Table 3. Pared Sample Hypothesis Test T-Test Control Class

	Paired Differences							Significance	
	Mean	Std. Devation	Std. Error Mean	95% Confidence interval of the difference		Q	Df	One-sided	Two-Sided
				Lower	Upper			p	p
Prettest	-529	1,125	-273	-1.108	,049	-1,941	16	<.001	<.001
Posttest									

Table 4. Pared Sample Hypothesis Test T-Test Experimental Class

	Paired Differences							Significance	
	Mean	Std. devotion	Std. Error Mean	95% confidence interval of the difference		Q	df		
				Lower	Upper			p	p
Pre Test	-7,667	,907	,214	-8.118	-7,215	-35,843	17	<.001	<.001
Post Test									

Based on the results of data processing calculated using the t test above in table 3. If the value at sig is <0.05 then Ha is accepted and Ho is rejected. Where the table shows that there is a significant difference between after and before being given gymnastics activities in the control class. For the ttable value then N-1, namely 17-1 = 16. The value dk = 16 results in ttable = 1.746. So the result obtained is that tcount > ttable, namely 1.941 > 1.746, so it is read that Ho is rejected and Ha is accepted. It can be concluded that there is an influence of physical fitness exercise on children's gross motor skills. And according to the results of data processing calculated in table 4, it shows that there is a difference between the results before and after treatment in the experimental class. For ttable then N-1, namely 18-1 = 17. If ttable is 1.740, the result is that tcount > ttable, namely 35.843 > 1.740, so Ho is rejected and Ha is accepted. So it can be interpreted that in the experimental class that was given treatment there was an influence of physical fitness exercises on children's motor skills.

DISCUSSION

This research was carried out at Darma Wanita Kindergarten, Jantho City, where this research used an experimental class consisting of 18 children and a control class consisting of 17 children. The research results showed that the pretest score was lower than the posttest, and the experimental class used treatment while the control class did not use treatment. These results show the influence of physical fitness exercise on children's gross motor skills. The data was collected using an observation sheet instrument and there were two data analysis techniques used, namely the normality test and the t test. On May 15 to May 22 2024, this research was carried out by giving a pre-test (initial test) and a post-test (final test). when seeing whether physical fitness activities are effective or not. In the experimental and control classes, the pre-test was carried out by doing a warm-up and basic movements in gymnastics, and the post-test in the experimental and control classes where children were invited to line up on the field by doing warm-up activities first, then the children followed the gymnastics movements through songs.

It can be concluded based on the results of this research that physical fitness activities have an influence on children's gross motor skills. In the normality test it was found that the data was normally distributed. The t test was carried out to see the difference or see whether the pretest and posttest data showed an increase, namely the pretest score for the control class was 3.17 and the pottest score was 6.70 in the experimental class with a pretest score of 4.16 and a posttest score of 10.3. Then, in the control class t test, the tcount value was 1.941 and ttable 1.746, so we got tcount > ttable, namely 1.941>1.746, in the experimental class ttable 1.740, we got tcount > ttable, namely 35, 843>1.740. So there is a difference between before and after so that Ho is rejected and Ha is accepted. Furthermore, the results of the analysis of the initial test (pretest) and final test (post test) on the effect of physical fitness exercises on children's gross motor skills in the control class, the pretest obtained 3.17 and the posttest 6.70, the experimental class obtained a pretest score of 4.16 and posttest. 10.3. So it can be said that the presence of physical fitness exercises has an effect on the gross motor skills of children aged 5-6 years at the Darma Wanita Kindergarten, Jantho City.

Children's success in physical fitness activities on children's gross motor skills is also supported by(Mariawati, Khairul Azmi, 2022)Where motor skills refer to a person's skills which are involved in components such as agility, endurance data, and strength that can be freely used when carrying out movements. Children at this age are the age where children's development and abilities occur very quickly. Motor development is one of the developments that occurs in a child's growth. Motor skill abilities are related to motor function in the child's brain. Therefore, there are several experts who argue that the development of children's motor skills is related to the development of other skills that occur in children, which ultimately influences how children speak to make decisions.(Dedeh Ubaedah, Atin Fatimah, 2019).

(Khofifah Indar Rahman, 2023) notes that because children enjoy doing gymnastics in the school yard, there are a number of activities that can help them improve their gross motor skills. Being physically fit is a popular activity among everyone. Almost everyone knows and loves this sport. This helps early childhood motor function skills improve effectively (Deva Amalia Ramadhan, 2022). In learning, physical education is a means of improving the development of motor skills, as well as encouraging physical development and growth.

Activities that involve gross motor skills are aspects that need to be taken into account by the child's environment, such as family and teachers (Zulnadila, Sumaryanti, Bernadeta Suhartini, 2024).

According to (Fairuz Afra Rafifah, Feli Anissa, Firda Alfira Muklis, 2024) Encouraging gross motor development which can be done through outdoor activities at school and anywhere. Various outdoor activities that stimulate gross motor skills, such as playing ball, cycling, running, jumping, crawling, controlling a ball, pushing and pulling, and climbing stairs. By repeating the exercise to the rhythm of the music and listening to the commands that must be carried out in the exercise, children can maintain their body movements and develop gross motor skills while imitating these movements.(Anik Lestariningrum, 2019)

(Candra, 2023) Physical fitness can be used as a measure of the health condition of the population. In learning circles, increasing students' physical fitness is one aspect that can strengthen their overall physical training through PJOK subjects and extracurricular activities as well as maximizing their physical abilities. To increase physical strength you can do it through various exercises such as SKJ gymnastics. Physical fitness is a potential daily activity that is very important so that children can continue to be active without feeling excessively tired. Through targeted physical activity (Abduha & , Humaedib, 2020)

The research and studies mentioned above have resulted in the conclusion that physical fitness activities can support children in developing their abilities, such as the skill of performing gymnastic movements accompanied by music or according to instructions. when children do activities that require gross motor skills.

CONCLUSION

Based on research that has been carried out at Dharma Wanita Kindergarten, Jantho City, it can be concluded that before using physical fitness activities or activities, child B's ability to motor skills is relatively low, this is indicated by the child's low body movement during gymnastics. However, after using physical fitness activities, children can make body movements using songs. This can be proven by the pre-test score being lower than the post-test normality test in the control class, 0.968 < 0.05 and the experimental class, 0.862 < 0.05, which can be interpreted as having a normal distribution. . And the tcount>ttable value obtained in the control class was 1.941 > 1.1746 and for the experimental class 35.847 > 1.740, so it can be interpreted that there is rejection of Ho and acceptance of Ha which means this activity has increased from before. So from this data analysis it can be concluded that this physical fitness exercise has an effect on children's motor skills.

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