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The utilization of "si buyung" gymnastics in improving early childhood gross motor skills

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Abstract

This research was conducted based on problems in learning in the development of physical motor skills, especially the gross motor skills of Asy Syaffa Kindergarten students. This study aims to determine the use of Si Buyung's gymnastics in improving gross motor skills in early childhood in Asy Syaffa Kindergarten. The experimental method was applied in this study by giving 14 treatments, including pretest and posttest. The research subjects were 24 students with the sampling technique, namely purposive sampling. This research instrument uses the Gross Motor Test, which consists of a 50-meter sprint test, Dodgin run, Standing Broad Jump test, Soft Ball Throw test, Wall Pass test, Medicine Ball put test. The results of hypothesis testing found that there was an effect of Si Buyung's gymnastics on the gross motor skills of early childhood. With the conclusion criteria t count > t table, 4,062 > 2,068 and the value of sig. 2-tailed 0.000 < 0.05 so that the hypothesis is accepted. So this study proves that Si Buyung's gymnastics can improve motoric movement in early childhood. The implications of this research are expected to be an alternative for kindergarten teachers as a learning approach to developing children's gross motor movements.

Keywords: si buyung gymnastic, gross motor skills, early childhood, kindergarten.

INTRODUCTION

Education is a lifelong self-development process attached to each individual who follows the times (Yuhety et al., 2008), to form a foundation in life, behavior, socialization, and society (Andiyanto, 2018). Importance

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of education is an integrated part of life from birth to death. So that education is attached to the individual's life to live the life itself. A good educational process is carried out early on when the individual is still looking for an identity. This early childhood education is considered appropriate to be maximized in arranging the future lives of each individual (Yunus & Wedi, 2018).

Early childhood education is so important to equip individuals to face real life. Through school institutions, early childhood can develop their potential. Through kindergarten, developing the potential of early childhood is carried out based on the curriculum. Kindergarten education institutions become facilities to develop early childhood in fundamental abilities, namely cognitive, communication, and physical aspects. Depth in early childhood kindergarten is also developed in affective, cognitive, and psychomotor.

At an early age, psychomotor aspects are one of the important goals in developing basic learning of motion. In the future, children can grow well and develop motor, emotional, and multiple intelligence and spiritual intelligence (Hasanah, 2016). Seeing from the purpose of early childhood education, physical education learning is an effort to realize its goals. Physical education in early childhood is expected to meet and develop movement needs in children. The purpose of physical education is to holistically develop the abilities or qualities of the individual in physical or physical terms so that simultaneously it can become a better and optimal direction (Litem et al., 2022). In addition, the meaning of physical education is learning through physical movement, so it takes early coaching about motor movement.

Early childhood motor development is needed because at that age, the child needs a fundamental movement that can base advanced movements and following skills. Children's good gross motor will help body movement and maintain balance (Montolalu, 2011). Developing motor movement requires the right approach considering that early childhood has the characteristics of play, so in developing motor movements in early

childhood, appropriate methods are needed so that learning becomes on target, namely the play approach (Sofyan et al., 2022). One of the ways to develop motor movement in early childhood is the gymnastics of the buyung. Gymnastics Si Buyung is included in one type of rhythm gymnastics because the way to do it is accompanied by rhythm or music. Si Buyung Gymnastics is one of the learnings in kindergarten aimed at developing gross motor skills in early childhood (Pradipta & Sukoco, 2013). Rhythmic gymnastics can optimize gross motor development in preschoolers or early childhood (Ulfah et al., 2021), and improve basic movements such as walking, running, jumping, twisting, and bending (Sasi, 2011). This study took the Buyung gymnastics because the gymnastics are included in rhythmic gymnastics, which contains elements of motion and rhythm intending to develop nervous system sensors in early childhood (Mawarti et al., 2012).

Furthermore, Si Buyung gymnastics can also provide gross motor development in children of Group B kindergarten (Rahmawati & Simatupang, 2015). The thing that needs to be underlined is the problem taken referring to previous research on the development of the gross motor movement in children this study made Si Buyung gymnastics for learning media in kindergarten, so the study in this study focuses on Si Buyung gymnastics to be used as a research variable.

The problem taken in this study is based on previous research studies and the results of researchers' observations. Previous research has stated that rhythmic motion packaged in Si Buyung gymnastics can improve children's gross motor movement ability (Agusriani, 2015; Kustati et al., 2016). At the same time, the observation results showed that at Asy Syaffa Kindergarten, they still apply classical learning with movement and songs without being well coordinated. Physical education learning in kindergarten has not co-opted Si Buyung gymnastics as one of the learning methods. In addition, children in Asy Syaffa Kindergarten seem to enjoy less learning in physical education. This shows the attitude of

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children who are more likely to pay less attention to the teacher by playing alone.

Furthermore, researchers also found that some children, when attending physical education and at playtime, saw movements that were not maximal, such as catching, jumping, and twisting, to inhibit the child's development. Poor motor skills are often overlooked because they are considered reasonable because of their early age (Katagiri et al., 2021). Because of these assumptions, the tendency to gross motor skills is less noticed.

The development of the gross motor movement in early childhood is given in learning in kindergarten. The learning approach uses the rhythm gymnastics method and the Buyung gymnastics as a medium for improving the gross motor movement of early childhood. In the Kindergarten Asy Syaffa is an early childhood school institution in Magelang Regency which is quite a favorite, seen from the considerable public interest by including their children in the kindergarten. So Asy Syaffa Kindergarten is expected to provide maximum educational services. But the learning process still seems conventional and only prioritizes children's freedom in playing without the assistance of the development of a gross motor movement. In addition, with the gymnastics method, Si Buyung in developing gross motor movements in children has not become a means of learning. So it seems that classical problems are the right method of improving gross motor movement in early childhood. Referring to the researchers' problems, this study took Si Buyung gymnastics as a method of improving gross motor movement in early childhood in kindergarten.

METODE

This research applies a research approach with quantitative data types through pseudo-experimental methods or quasi-experiments. Pseudo-experimental research can be observational studies that have control with proof of effectiveness (Maciejewski, 2020). The selection of research methods is based on proving si Buyung's gymnastics learning

methods in early childhood in improving gross motor movement. This research design is used to find the effectiveness of Si Buyung's gymnastics in improving gross motor movement. The subjects used Asy Syaffa kindergarten students in this study, as many as 24 male and female students were taken with purposive sampling techniques. The test instruments of gross motor adopted from gross motor test research include: (1) short-distance running test of 50 meters, (2) Dodgin run, (3) Standing Broad Jump Test, (4) Soft Ball Throw Test, (5) Wall Pass Test, (6) Medicine Ball put Test (Humaedi et al., 2021). The validity and reliability of the instrument can be seen in the following table:

Table 1. Validity and Reliability of The Instrument

Test Name	Validity	Reliability
Short Distance Running Test	0,997	0,933
Dodgin Running Test	0,977	0,938
Standing broad jump test	0,720	0,946
Soft ball throw test	0,999	0,997
Wall pass Test	0,938	0,837
Medicine ball put Test	0,989	0,979

Furthermore, si Buyung's gymnastics learning method in this study was adopted from previous research (Pradipta & Sukoco, 2013), which was used as a treatment of 14 meetings including with pretes and postes held at Asy Syaffa Kindergarten with Covid-19 Health Program. The research design is as follows:

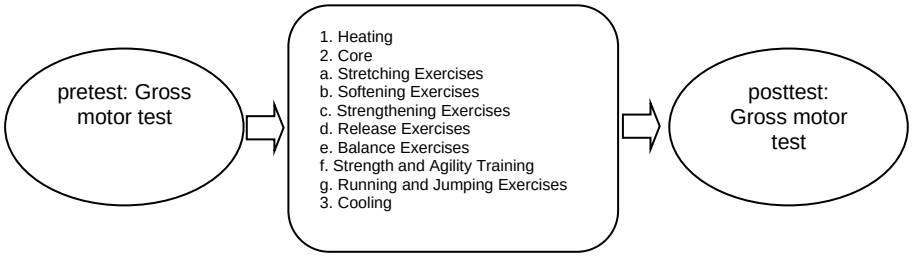

Figure 1. Experimental Design

RESULT

Description of Research Data

A description of the research data found the tendency of the data described in the table below:

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Table 2. Research data description

	Pre-test	Pos-test
Maximum	109,28	190,22
Minimal	290,23	298,56
Mean	245,35	272,85
Median	251,57	285,56
Mode	0	0
SD	41,64	29,87

Table 2 shows a description of the research data with pretest and postes data. Next it is presented in the frequency distribution table of pretes and postes as follows:

Table 3. Pretes and Postes Data Frequency Distribution Table

Interval	Category	Frequency		Relative Frequency	
		Pre-test	Post-test	Pre-test	Post-test
>289,73	Very Good	1	4	4%	17%
263,24 ≤ X < 289,73	Good	9	15	38%	63%
236,75 ≤ X < 263,24	Moderate	6	1	25%	4%
210,26 ≤ X < 236,75	Less	4	0	17%	0%
< 210,26	Very Less	4	4	17%	17%
		24	24	100%	100%

Table 3 above shows pretest data with very good categories as much as 1 (4%), good categories as much as 9 (38%), moderate categories as much as 6 (25%), less categories as much as 4 (17%), categories less once as much as 4 (17%).

Table 3 also shows postes data with very good categories as much as 4 (17%), good categories as much as 15 (63%), moderate categories as much as 1 (4%), categories less as much as 0 (0%), categories less once as much as 4 (17%). Looking at the data description and frequency distribution table can be seen the difference in mean and frequency in each category. Then it can be assumed that there is a difference in the tendency value of data pretes and postes. More details can be described by the histogram as follows:

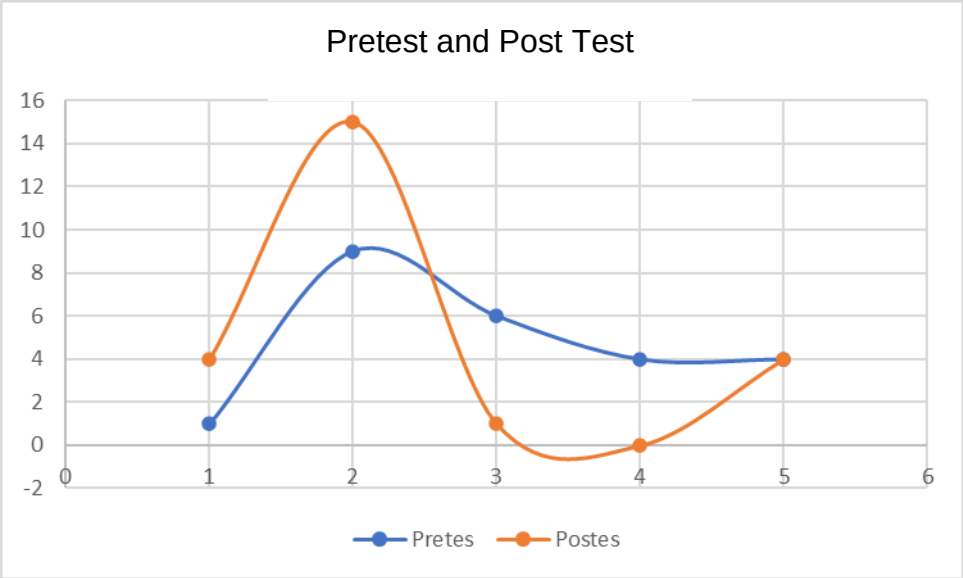

Figure 2. Pre-test and Post-test Diagrams

Once the data is described through tables and diagrams the next step is data analysis.

Data analysis

The aalysis data used in this study used the wilcoxon test assuming it did not perform normality testing. The use of the wilcoxon test because it can also be used to find out there is an average difference in the sample. The results of the analysis through SPSS show the following:

Table 4. Output Wilcoxon Signed Ranks

		N	Mean Rank	Sum of Ranks
Post-test – Pre-test	Negative Ranks	0[a]	0.00	0.00
	Positive Ranks	24[b]	13.90	292.00
	Ties	0[c]		
	Total	24		

Table 4 explains that the negative ranks between pretests and postes show 0 samples with the sense that there is a decrease from the pretest value to the postes. Furthermore, postivie ranks show that the value between pretests and postes has increased in value with a mean rank of 13.90, while the sum of ranks value shows 292.00. Ties in the table obtained 0 indicate that there is no equal value in pretests and postes. Furthermore, for hypothesis testing can be drawn conclusions from the output as follows:

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Table 5. Hypothesis Test with Wilcoxon

Test Statistics[b]	
	Post-test – Pre-test
Z	-4.057[a]
Asymp. Sig. (2-tailed)	.000

Table 5 shows that the value of Asymp. Sig. (2-tailed) is worth 0.000 with a conclusion criterion smaller than the 0.05 hypothesis accepted. So there is a difference in the gross motor skills of early childhood after being given learning gymnastics the Buyung. After getting the results of differences in pretests and postes, an analysis of the influence of Si Buyung's gymnastics on gross motor skills in early childhood can be seen in table 6 below.

Table 6. Paired Samples Test

		95% Confidence Interval of the Difference		t	Df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	PreTes - PosTes	41.512	13.498	4.062	23	.000

Table 6 shows the degree value of freedom from pretest data to postes. The hippothetic test performed by the t test uses the criteria t count > t Table to accept the hypothesis. So 4,062 > 2,068 and a sig value. 2-tailed 0.000 < 0.05 so it can be said that the proposed hypothesis is accepted by sound there is an influence of Si Buyung's gymnastics on gross motor movement ability in early childhood kindergarten Asy Syaffa.

DISCUSSION

Judging from the research results shows that gross motor in early childhood increases after being given the gymnastics treatment of Si Buyung. This cannot be separated from the basic principle of influence of rhythmic gymnastics that positively impacts the gross motor because si buyung gymnastics is included in the category of rhythm gymnastics that can be applied to early childhood learning to develop movement. In principle, the gross motor can be said to be a series of gestures requiring large muscles' involvement based on individual maturity (Lailaturohmah et al., 2021). Furthermore, rhythmic gymnastics positively affect gross motor

development in early childhood because early age is a good time to receive stimulation through rhythmic gymnastics (Kadi et al., 2018). Seeing this opinion is clear that rhythmic gymnastics can develop the gross motor skills of early childhood. Rhythm gymnastics in this study used Si Buyung gymnastics to be used as a treatment or intervention from free variables.

Gross motor in early childhood is the basic capital in the general development of movement skills. Because good motor development can impact other aspects beyond variables, children who are given wider opportunities can be used as a child movement experience more and more. So that the experience of motion can provide better motor sensory activity in the use of muscles to move, seeing that early childhood has little experience of movement, it takes a method that is gymnastics Si Buyung to stimulate movement based on rhythm (Cheung, 2010). Si Buyung gymnastics requires movements accompanied by music and narrative (Kustati et al., 2016). So that Si Buyung gymnastics can influence the improvement of gross motor owned in early childhood, it is influenced by the muscular system directly related to the gross motor that early childhood has (Meijer et al., 2021).

The influence of Si Buyung's gymnastics on gross motor skills is a form of the importance of motion experience. Gross motor skills possessed by early childhood are needed to assist growth and development. Gross motor development owned by early childhood can provide agility and strength for children to development (Shala, 2009). It is also supported by motor skills that suit the needs of children and will have an impact on cognitive intelligence as well (Veldman et al., 2019). Looking at the explanations above can prove that Si Buyung's gymnastics can improve gross motor skills and has a positive influence. The implications of this study provide scientific proof that the approach of learning motion using gymnastics buyung is one of the right ways to develop gross motor movements in early childhood. But in this study, there are still shortcomings in its implementation, namely the lack of control in the

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sample so that interventions from other variables are less noticed. The hope is that the next study can include other variables outside as an intervention consideration in the sample.

CONCLUSION

The results of research that states there is an influence of Si Buyung gymnastics on gross motor skills possessed by early childhood provide evidence that it needs to be emphasized again in the early childhood education process. Gross motor learning that early childhood has is needed to develop other aspects so that growth and development are appropriate for their age. Gymnastics Si Buyung provides evidence that the movement of movement can have an impact on all aspects.

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