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The Effect of Playing Gamparan Training on the Ability of Long Kicks of Female Students Participating in Extracurricular Soccer

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Abstract: *Based on the issues of the unknown influence of exercise on playinggamparantowards the ability of long pass kick of the female football extracurricular participants, this study aims to determine the influence of exercise on playing-gamparan towards the ability of long pass kick of the female football extracurricular participants of SMPN 2 Pengasih in 2014. This study is an experiment with randomized control group pretest-posttest design. The subjects of this study are the participants of female football extracurricular of SMPN 2 Pengasih, totaling 30 students. The instrument that is used is kicking for distance from Warner test of soccer skill. The validity level of this test is 0.827 and the reliability level is 0.905, it means that this instrument is able to give valid and reliable data. The data analysis technique is using independent sample t test at 5% signification level. The result of t test in the experimental group shows that t count (2.365)> t table (2.048), and the value of p < 0.05, whereas t count of the control group (0,186) < t table of the control group (2,048), and the value of p > 0.05. This result may imply that there is an influenceof exercise on playinggamparan to the distant of the kicked ball of the experimental group of the female football extracurricular participants of SMPN 2 Pengasih, Kulonprogo. The improvement level of exercise on playing gamparan towards the distant of the kicked ball is 31.83%. In conclution, exercise on playing gamparan can be one of efective exercises to improve the distant of kicked ball in football games.*

Key words*: Playing Gamparan, Long Pass Kick, Female Football Extracurricular, Female SMP Students*

Introduction

The game of football is one of the sports that is very popular with most people on this earth, from various social layers, ages and even genders. Likewise, in Indonesia, even now it is the fruit of lips for the success of the Indonesian national team under the age of 19 under coach Indra Sjafri some time ago who won the AFF cup title to the senior national team that improved the world FIFA ranking under the care of Shin Tae Yong. The achievement of this peak achievement can be achieved through the development of athletes through gradually starting from the beginner level to the outstanding athlete or from the early age stage to adulthood (the peak of appearance). Long-term athlete development (LTAD) in football requires age-specific training programs that focus on technical skills, tactical understanding, and physical conditioning tailored to young players' growth stages (Ford et al., 2011). Early age or young football coaching requires coaches, teachers, agencies, clubs, PB or football coaches to pay close attention and meticulous in providing guidance to their students or athletes. Therefore, coaches, teachers, offices, clubs or football coaches must understand the characteristics of their students or athletes according to their age level, because in the development of football at an early age or young age (school age) it is grouped by age to achieve the maximum football development programme. Effective youth football coaching emphasizes fun, skill acquisition, and psychological development rather than early specialization, which can lead to burnout and dropout (Côté & Hancock, 2016). Changes and improvements in achievement will occur if coaching is carried out well, the training programme is well arranged in accordance with the ideal stages and principles of training, gradual and continuous competition, adequate and standard infrastructure, good quality and experience of coaches, support for food and beverages with good nutritional composition, good sports research and development, funding system and supporting sports policies, athlete conditions ranging from talent, motivation and networking/selection (talents counting) and so on. Optimal

nutrition and recovery protocols are critical for youth athletes to support growth, performance, and injury prevention in football (Lloyd et al., 2015). Talent identification in football must consider not only physical and technical abilities but also psychological resilience and socio-environmental support systems (Williams et al., 2020). Grassroots football development depends on structured competitions, quality coaching, and government policies that prioritize youth sports infrastructure (Haugaasen & Jordet, 2012).

The game of football is a complex game that combines physical elements, techniques, tactics, strategies and mental play well in open skills. One of the basic techniques that must be mastered is the basic kicking technique, one of which is a long-range kick. Long-range kicking ability significantly contributes to goal-scoring opportunities and team tactical flexibility in modern football (Marcote-Pequeño et al., 2019). The optimal long-distance kick requires precise coordination between approach angle, plant foot placement, and follow-through motion to maximize ball velocity (Lees & Nolan, 1998). Long passes have an important meaning in the game of football, not a few goals are created from long-range kicks. In every football match, long-range kicks are very often executed by every player, because in addition to scoring goals, they can also be used to provide passes to teammates, speed up counterattacks and so on. Teams that effectively utilize long-range passes demonstrate 23% higher success rates in counterattacking situations (Memmert et al., 2017). A goal kick, corner kick or other free kick is one example of a long pass kick to provide a pass to a teammate at a distance (a certain distance). Thus, long-range kicks in the game of football are very necessary and have a very important significance in winning the game. Specific long-range kicking training should incorporate both stationary and moving ball drills to develop game-realistic competence (Ali, 2011).

One of the ways to coach football in schools can be done through extracurricular activities. At SMP N 2 Pengasih Kulon Progo, one of the extracurricular activities held is the extracurricular football of the women's group. In the implementation on the field, the extracurricular participants of SMP N 2 Pengasih women's football are mostly in doing long-distance kicks are still not many who have not been able to do so, rarely done because they are not touched by the coach, female players are still weak in kicking the ball and still often make technical mistakes, such as putting the foot on the ball still using the tip of the foot or the inner foot, so that the ball produced is still flat and the rotation and strength of the ball are still weak. This can be seen when the female participant performs a long kick (long pass); the result of the kick is still weak (not reaching the target), the accuracy is also not right, and the foot contact on the ball is also not correct, so that the foot contact on the ball is still located on the toe, even though to execute the long pass technique, in addition to the correct technique, strength and explosive power of the leg muscles (power) are also needed. The physical condition of the female football extracurricular participants of SMP N 2 Pengasih is also still weak; to play for only 2x25 minutes, the students already look tired due to weak cardiorespiratory endurance, and also the previous female extracurricular participants also rarely exercised other than during health service subject activities during regular hours. Judging from the existing problems, it is necessary to find other effective and fun training models in the form of games to improve the quality of technique and strength or explosive power of leg muscles of female football students participating in the extracurricular football of SMP N 2 Pengasih so that they have a good quality of long-distance kicks. Thus, the researcher wants to provide a training model in the form of a traditional game of gamparan. Gamparan is a game of aiming at an arrangement of stones set on the ground by throwing a stone placed on one of the insteps until the arrangement falls. A person chosen by lottery will oversee rearranging the fallen stones. The values contained in this game include agility and sportsmanship (Lindawati, 2019). The gamparan game is a training method to improve the ability to kick long distances (long passes), as the movement of this traditional game of gamparan resembles the movement when performing a kick. However, there is also a load on the participant's legs, namely the loading of the stones used to play, which increases the strength and power of the leg muscles. The distance used in the gamparan game will also vary, training the accuracy of the techniques and kicks of extracurricular participants to hit the target with weight and distance that rises progressively and differently.

Method

This research is an experimental study, such research (Leguizamo et al., 2024)by applying a pre-test/post-test control group design with expert validation showed the effect of training intervention. This study aims to find out and provide an overview of the effect of playing gamparan practice on the ability of long pass kicks of students participating in football extracurricular activities at SMP N 2 Pengasih Kulonprogo, Yogyakarta. The method used in this study is a survey method using test and measurement instruments in the process of collecting and gathering data. A survey

is a system for collecting valid information from or about people to describe, compare, or explain their knowledge, attitudes, and behavior (Fink, 2009). Before the research and provision of this training or treatment programme is carried out, the training programme that has been created by the research team will be validated by the appointed expert to ensure that the training programme is good and truly feasible to be applied. Expert validation can improve the quality of the instrument, although there are challenges in finding experts who are truly competent in the desired field ("Assessing the Validity of Experts' Value Judgment over Research Instruments," 2023).

All subjects used in this study will do an initial test / pretest first, then do treatment exercises and then will be measured by a final test / posttest. Based on the data from the pretest results, the data was then sorted and ranked based on the ability of the students, starting from the farthest longpass kick results to the nearest results. The grouping of the results of the students' longpass kicks was divided into two, namely as a control group and an experimental group using the ordinal pairing technique based on this order. The control group was trained and did not receive the treatment of playing the game, while the experimental group was trained and received the treatment of playing the game. Exercises and treatment sessions as well as post-test measurements were carried out after 16 treatments with 3 meetings a week, totalling 3 meetings. All training groups, based on the division of their groups, will conduct a pre-test at the beginning and a post-test at the end of the exercise. The results obtained during the posttest will be compared with the results of the pretest to find out the percentage of the increase or decrease in the control group and the experimental group after receiving treatment in the form of a game practice. The population in this study is students who participate in women's football extracurricular at SMP N 2 Pengasih which totals 30 people consisting of 3 grade VII students and 27 grade VIII students.

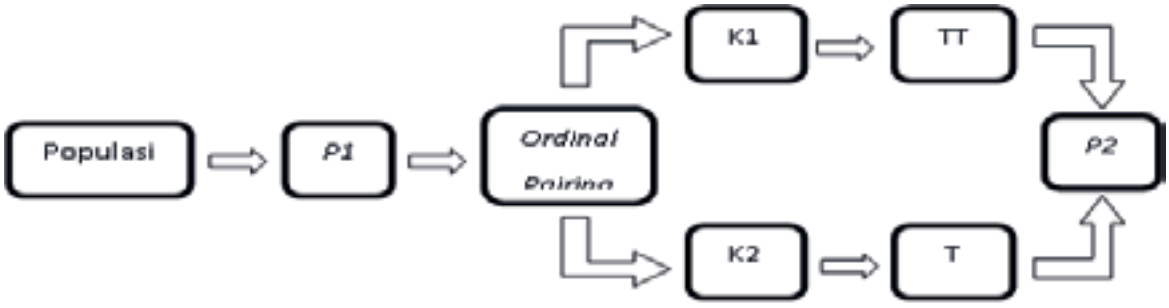

Figure 1. *Research Design*

Information:
P1 : Pretest (kicking for distance) dari Harold M. Barrow dan Rosemary McGEE)
K1 : Group 1
K2 : Group 2
TT : No Treatment
T : Treatment with Gamparan play practice.
P2 : Postest (kicking for distance dari Harold M. Barrow dan Rosemary McGEE)
Source: (Ali Maksum, 2012: 96).

Table 1. *Pretest result ranking data*

Rangking (Nomer)	Subject Name	Best Results (Meter)		Rangking (Nomer)	Subject Name	Best Results (Meter)	
		Pretest	*Post Test*			*Pretest*	*Post Test*
1	TR	18.00	21.00	12	LAS	11.30	17.00
2	DWM	17.00	18.10	13	VA	11.00	12.10
3	ZO	16.00	15.00	14	TRI	11.00	9.80
4	DOA	14.90	16.70	15	DLP	10.00	9.60
5	DW	14.50	16.90	16	DPY	9.80	14.00
6	RKA	13.30	8.00	17	ASH	9.30	13.00
7	TC	12.00	9.25	18	AR	9.00	9.00
8	ISR	12.00	14.70	19	SPA	8.50	8.20
9	FI	11.80	14.50	20	AY	8.00	12.70
10	IP	11.50	13.50	21	EMD	7.70	14.10
11	NRP	11.50	11.30	22	TWP	7.50	8.80

Rangking (Nomer)	Subject Name	Best Results (Meter)	
		Pretest	*Post Test*
23	ASI	7.30	9.10
24	DTS	7.00	8.40
25	HH	6.80	7.80
26	SFN	6.50	6.50

Rangking (Nomer)	Subject Name	Best Results (Meter)	
		Pretest	*Post Test*
27	UKO	6.40	7.50
28	DO	5.40	8.30
29	NR	4.70	6.00
30	ARY	4.50	4.80

Table 2. *Pretest Data Description*

No.	*Interval Score*	Category	Frequency	Percentage (%)
1.	> 16.7	Very good	2	6.7
2.	12.9 – 16.7	Good	4	13.3
3.	9.1 – 12.8	Keep	11	36.6
4.	5.2 – 9	Less	11	36.6
5.	≤ 5.1	Very little	2	6.7
Sum			**30**	**100**

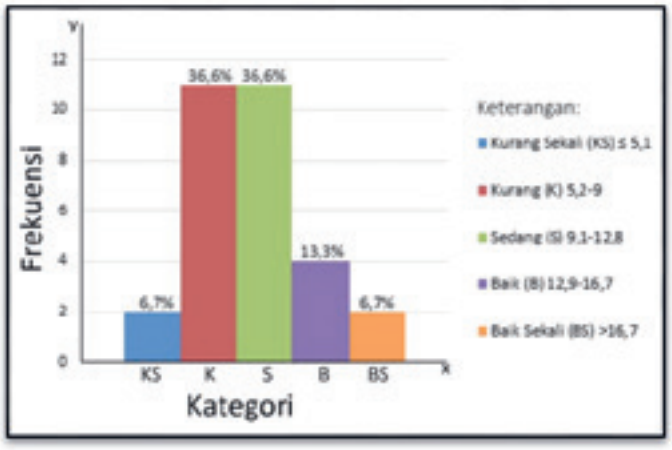

Figure 2. *Pretest Bar Diagram*

Results and Discussion

Based on the data from the results of pretest and posttest measurements, the following data were obtained:

Table 3. *Division of experimental group and control group Based on the concept of ordinal pairing theory*

Pretest Rankings	K1 (Group Eksperiment)			Pretest Rankings	K2 (Group control)		
	Name	*Pretest*	*Post test*		Name	*Pretest*	*Post Test*
1	TR	18.00	21.00	2	DWM	17.00	18.10
4	DOA	14.90	16.70	3	ZO	16.00	15.00
5	DW	14.50	16.90	6	RKA	13.30	8.00
8	ISR	12.00	14.70	7	TC	12.00	9.25
9	FI	11.80	14.50	10	IP	11.50	13.50
12	LAS	11.30	17.00	11	NRP	11.50	11.30
13	VA	11.00	12.10	14	TRI	11.00	9.80
16	DPY	9.80	14.00	15	DLP	10.00	9.60
17	ASH	9.30	13.00	18	AR	9.00	9.00
20	AY	8.00	12.70	19	SPA	8.50	8.20
21	EMD	7.70	14.10	22	TWP	7.50	8.80

Pretest Rankings	K1 (Group Eksperiment)			Pretest Rankings	K2 (Group control)		
	Name	*Pretest*	*Post test*		Name	*Pretest*	*Post Test*
24	DTS	7.00	8.40	23	ASI	7.30	9.10
25	HH	6.80	7.80	26	SFN	6.50	6.50
28	DO	5.40	8.30	27	UKO	6.40	7.50
29	NR	4.70	6.00	30	ARY	4.50	4.80
Sum		**15 Student**		**Sum**		**15 Student**	

Table 4. *Description of Postest Data*

No.	*Interval Score*	Category	Frequency	Percentage (%)
1	> 16.7	Very good	4	13.3
2	12.9 – 16.7	Good	8	26.7
3	9.1 – 12.8	Keep	7	23.3
4	5.2 – 9	Less	10	33.3
5	≤ 5.1	Very little	1	3.33
	Sum		**30**	**100**

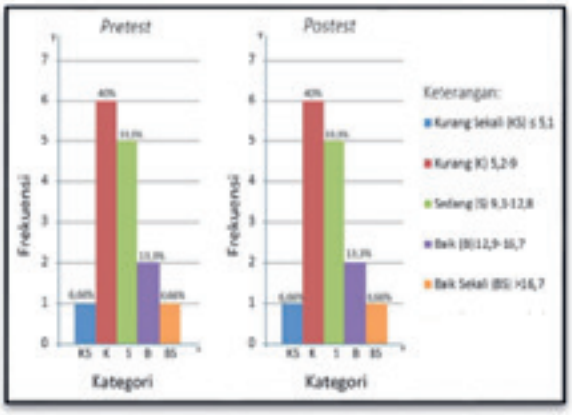

Figure 3. *Pretest and posttest data diagram of the control group*

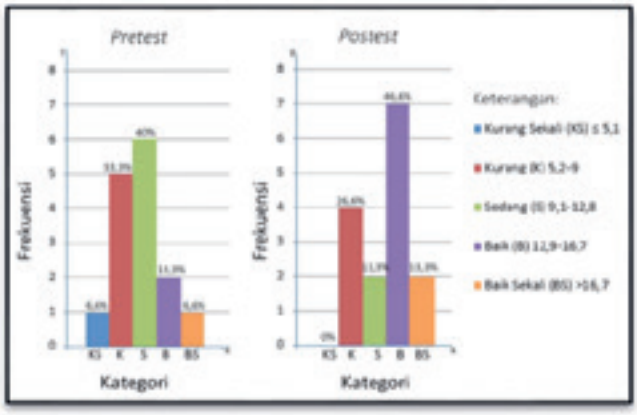

Figure 4. *Pretest and posttest data diagram of experimental groups*

Table 5. *Comparison of Interval Score Frequency of Experimental Group and Control Group*

No.	*Interval Score*	Category	K1 (Group Eksperiment)		K2 (Group control)	
			Pretest	*Postest*	*Pretest*	*Postest*
1	> 16.7	Very good	1	2	1	1
2	12.9 – 16.7	Good	2	7	2	2
3	9.1 – 12.8	Keep	6	2	5	5
4	5.2 – 9	Less	5	4	6	6
5	≤ 5.1	Very little	1	0	1	1
Sum			**15**	**15**	**15**	**15**

a. Results of the Normality

Test The criteria used to determine whether a distribution is normal or not is if the significance of the p > count is 0.05 (5%) the spread is declared normal and if the significance of the p < count is 0.05 (5%) the distribution is abnormal. The results of the normality test of this study can be seen in the following table:

Table 6. *Results of the normality test (Shapiro-Wilk)*

Data	P	Sig 5%	Information
Pretest Eksperimen	0.966	0.05	Usual
Postest Eksperimen	0.934	0.05	Usual
Pretest Kontrol	0.779	0.05	Usual
Postest kontrol	0.111	0.05	Usual

b. Homogeneity Test In the homogeneity test. the rule used to determine whether a test is homogeneous or not is if $p > 0.05$ the test is declared homogeneous. and if $p < 0.05$ the test is declared non-homogeneous.

Table 7. *Homogeneity test results (Levene)*

Group	F	P	Sig 5%	Information
Eksperiment	0.011	0.918	0.05	Homogen
Control	0.273	0.605	0.05	Homogen

c. Hypothesis Test Hypothesis testing is carried out to determine the acceptance and rejection of the hypothesis submitted after the analysis requirements are met. hypothesis testing using the t-test and the results can be seen in the following table.:

Table 8. *Hypothesis test results*

Group	*df*	t tabel	t hitung	p	Sig 5%	Information
Eksperiment	28	2.048	2.365	0.025	0.05	Ha accepted
Control	28	2.048	0.186	0.853	0.05	

Based on the results of the hypothesis test. it was shown that the t-value of the experimental group (2.365) > t table (2.048) was obtained. while the t count of the control group (0.186) < t table of the control group (2.048) was obtained. The p-value of the experimental group (0.025) < from 0.05. while the p-value of the control group (0.853) > 0.05. The results can be interpreted that there is a significant influence of gamparan game practice on the ability of long pass kicks of female students in the experimental group of female football extracurricular participants of SMPN 2 Pengasih.

Gamparan game exercise is one of the methods of exercise to increase muscle strength. Strength is the driving force of every physical activity. so strength has an important role in protecting athletes from possible injuries. or with the strength of an athlete will be able to lift weights. kick. throw. hit. or perform other physical movements easily. efficiently. safely according to the desired target. The physical condition component is an important element that must be possessed by a sportsman to maintain the quality of his game. body movements. basic technical movements. tactical movements. strategic designs to his mental quality during competitions.

In this case. the training/treatment programme that will be applied to the experimental group is first consulted with experts in physical training programmes and football games. The practice of gamparan games that have been validated is able to increase the strength and power of the leg muscles. especially the muscles of the upper limbs and lower limbs because in this gamparan game there is a load that must be overcome by the legs and the distance of the target conquered which also the load will continue to increase progressively in accordance with the principles and rules of good and correct training. Through this gamparan game. the best hope is to increase the strength and power of the leg muscles which will immediately have a positive impact on the ability of female students to perform basic technical movements of kicking the ball with long passes or long-distance kicks. In providing this gamparan game treatment. so that the students do not feel bored. this gamparan game needs to be packaged in the form of competitive. fun. entertaining and mainly safe games to do. A play approach can effectively improve physical fitness and leg muscle strength while keeping athletes motivated and happy (Los Arcos et al.. 2015; Selmi et al.. 2017; Susanto et al.. 2024). Play-based training also improves fitness and thinking (Susanto. et al.. 2022). Rule changes in modified or

simplified exercises. varying weights. increasing distance from the target and simple scoring models make students not feel bored or tired quickly when doing weight training (Susanto et al.. 2024). Thus. this exercise can be one of the references that can be used by trainers or physical education teachers to improve physical fitness. the quality of players' physical condition or the quality of techniques or basic movements for students or athletes to achieve better fitness and achievement. especially in the sport of soccer games.

Translated with. In all sports activities. regardless of the type of sport. physical condition plays a very important role in supporting other elements. The physical condition of a sportsman will greatly affect and even determine the appearance or performance of their movements during training or competition (Mohr et al.. 2022; Sumarno et al.. 2022; Sunarto et al.. 2023).

Physical condition is one of the important elements and is the basis for developing technical. tactical. and strategic components as well as mental aspects in practising and competing in sports. The status of physical condition can reach an optimal point if the training undertaken follows a good. programmatic. and measurable training process that starts from an early age and is accompanied by an experienced coach. Good exercises should be structured and carried out continuously. programmatically. and measurably continuously. and continuously guided by the basic principles of good and correct training. Good physical condition will also affect the function of joint organs and organism/metabolic systems in the body (D'Onofrio et al.. 2023; Jach et al.. 2023; McCarthy et al.. 2022). including: 1) there is an increase in the ability of the circulatory system and the work of the heart and lungs (cardiorespiratory system and cardiovascular system). 2) there is an increase in the quality and quantity of physical condition components that synergise with each other. 3) there is a better degree of movement during exercise or competition. 4) there is a faster recovery phase in the organs of the body after training or competition.. 5) there is a faster response and reaction from the body's organism to respond to stimuli if needed. 6) there is effectiveness and efficiency in performing technical movements during training or sports competitions. 7) there is high confidence in performing technical movements during training and competition (reducing the occurrence of errors in performing technical movements). 8) the strength and stability of the body are maintained so that it is not easy to experience fatigue or injury. 9) good physical condition will be able to maintain ideal weight and disease risk. 10) psychologically will increase thinking intelligence (decision-making) and reduce stress and so on. The physical condition possessed by a person is greatly influenced by many factors (Miravalls et al.. 2020; Sempere-rubio et al.. 2019; Yarmak et al.. 2018). such as: 1) age. 2) gender. 3) genetic factors/predisposition. 4) habits and lifestyle (smoking. alcohol. staying up late). 5) exercise and physical activity. 6) rest patterns (7-8 hours). 7) nutrition and diet (food and drinks for health). and so on. In accordance with the physical condition training guidelines. to maintain and improve physical condition. you must meet the training requirements (Bennie et al.. 2019; Oliveira et al.. 2018; Piercy et al.. 2018; Titze et al.. 2020). namely: 1) training should be carried out at least 3-5 times per week with a duration of 30-90 minutes per session. 2) training should be conducted with good training stages and principles (progressive. overload. reversible. varied. individual. FITT). 3) good training should be accompanied by someone competent with a measurable exercise programme. 4) good training is supported by the adequacy and quality of sports facilities. 5) continuous training also requires tests and measurements to find out the changes. and so on.

In the measurement data. the mean value of the control group students decreased which was allegedly because during the exercise the students always complained and wanted to get/do the same programme as the exercise carried out by the experimental group. namely the practice of the game of gamparan. As a result. the impact causes the students to become less enthusiastic and quickly feel bored. and when the post-test is carried out. it turns out that the results are not optimal and tend to decrease compared to the data at the time of the pre-test. In the implementation and execution of this training programme. the control group students and the experimental group students were trained by different trainers. the training was carried out at the same time but the locations were somewhat far apart because they only used different sides of the field.

Conclusion

Based on the results of the above study. it can be concluded that there is a significant influence of the physical exercise programme of the gamparan game on the strength and power of the leg muscles that are able to produce the distance of the long pass kick of female students in the experimental group of female football extracurricular participants at SMPN 2 Pengasih. Kulon Progo. This is evidenced by the increase in the results of the long-range kick

post-test in the distance kick test on the experimental group of female football extracurricular participants at SMPN 2 Pengasih. Kulon Progo.

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