



## The Influence of Traditional Games on Freestyle Swimming Speed in Riau Aquatic Pekanbaru Swimming Association Athletes

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### Abstract

Increased swimming speed can be attributed to factors such as improved motor coordination, physical endurance, and possibly other benefits gained through traditional play. This study aims to evaluate the effect of participation in traditional games on increasing freestyle swimming speed in athletes who are members of the Riau Aquatic Swimming Association in Pekanbaru. This study used an experimental approach by dividing athletes into two groups: a group that underwent additional traditional game sessions and a control group that underwent regular training without additional intervention. Swimming speed measurements were carried out before and after the intervention period. The results of the T test in table 4 for the experimental group obtained a calculated T value = 29.665 > T table = 2.052 and a sig value. (2.tailed) = 0.000 < 0.05. The conclusion of the research shows that traditional games have a significant influence on freestyle swimming speed in athletes from the Riau Aquatic Swimming Association, Pekanbaru, Riau Province.

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## INTRODUCTION

Sport is a regular and planned physical activity carried out by individuals or groups with the aim of obtaining physical and spiritual health, as well as developing the talents and abilities of individuals in certain sports (Pasaribu, 2020). Physical education, sports and health are media to encourage physical growth, psychological development, motor skills, knowledge and reasoning, appreciation of values (attitude, mental, emotional, sportsmanship, spiritual and social), as well as the habit of healthy lifestyles that lead to stimulate balanced growth and development of physical and psychological qualities (Haking & Soepriyanto, 2019). Swimming is a sport with activities in water which includes other sports, such as diving, water polo, synchronized swimming and open water swimming. Swimming is a sport carried out in water and is the most well-known and popular with many people from children. -children to parents (Ahmad, Tangkudung, Wijaya, & Widiastuti, 2023).

There are various types of sports or competitions in this part of the world, but this article focuses on swimming. Because this sport is a physical activity that has many fans. In various sporting activities, good physical condition is needed to support the fluency in carrying out various physical movements. This also applies to swimming. (Yudha Prawira, Prabowo, and Febrianto 2021) swimming is a popular sport that is popular or loved by all ages, starting from adult children and parents in general. Even in our own country, it is known to all people regardless of gender or age. For this reason, many entrepreneurs and regional governments in Indonesia have provided swimming sports infrastructure to make it easier to introduce swimming

as well as train and develop achievements in swimming starting from an early age.

Swimming has various goals, including individual skills, physical development, healthy living development, physical fitness, and performance sports (Marsheilla Aguss, Fahrizqi, Ameraldo, Nugroho, & Mahfud, 2022). Apart from that, swimming has several benefits, including helping the body's growth and development, socializing and interacting with other people, increasing self-confidence. themselves, stimulate children's creativity, and increase children's happiness. Optimal swimming speed is the ultimate goal of the swimming training process (Lestarinigrum, 2019). Coaches use various forms of training in the hope that the athletes' swimming speed can increase. The components that can increase swimming speed are the work of the coaches and strive to implement these components in the training process. As we all know, in all measurable sports, including swimming, the components that can improve performance are the physical component (physical condition) and the swimming technique component (Febrianto, 2019).

The swimming training decomposition explains the different stages of swimming training. It has been divided into several stages. The stages define the overall method of the training while swimming. These stages include a complete swimming cycle. The first stage defines the period division of the swimming training. The second stage explains the key nodes of the training and the third stage elaborates on the frame division of the swimming training (Chen, 2022) The training model can be said to be effective when in the implementation process it works as a whole, meaning that the athlete feels happy, satisfied, enthusiastic and gets good results. As for

the purpose of the training model developed output. The goal is the time achieved in the freestyle swimming number. When implementing a swimming training model, things that need to be considered are the stages such as dividing training periods and explaining the form of the training model (Yunani, Puspitasari, & Sulistiyawati, 2013).

Traditional games are synonymous with childhood play, where playing traditional games becomes more enjoyable because one does not feel pressured by rules or commands, even though they may feel tired while doing so (Narlan, Priana, & Damayanti, 2020). In traditional sports, there are noble teachings embedded by their owners. Additionally, traditional sports have benefits for the body such as fitness and health, and they can instill moral values from the owners of those traditional sports themselves (Handoko & Gumantan, 2021). Traditional games strengthen children both physically and mentally, socially and emotionally. They foster optimism, exploration, experimentation, and cultivate leadership qualities (Cahya Saputri & Katoningsih, 2023).

The training model that will be developed later is a training model in the form of a traditional game, which will be designed as a training model for freestyle swimming. The game will be adapted to the basic forms of movement in freestyle swimming. Games are taken from children's habits. Children who like to play in the river make it a game to fill their free time. Traditional games are identical to childhood games when playing, with traditional games playing becomes more fun because you don't feel pressured by rules or orders even though you feel tired when doing them. When playing traditional games, the perpetrators do not realize that there are

many benefits that can be gained from playing these games, such as gaining movement vocabulary, improving physical condition, getting positive values when playing such as honesty, cooperation, leadership, discipline and others (Narlan et al., 2020).

Swimming consists of four styles that are contested, namely: butterfly, backstroke, breaststroke and freestyle. One of the styles that is easiest for novice athletes to master is freestyle (Rezki, Jatra, & SM, 2019). The influence of education is very important in the life process of each individual and has an important function and role in forming the national character of a country. According to (Harjanto, Kartowagiran, & Maryanto, 2020) good learning must evaluate learning to find out deficiencies in the quality of learning. Physical education activities are physical education whose objectives include all aspects of educational development, including children's social and mental growth. Through physical education, students can develop psychomotor, affective and cognitive aspects well.

Physical condition plays an important role in the implementation of an athlete's training program (Prima & Kartiko, 2021), therefore the training program must be carefully planned, carried out seriously in stages, in order to improve physical fitness and the ability to function body systems so that athletes can achieve better performance (Harsono, 2018). In swimming, athletes must perform fast freestyle swimming movements such as swinging their arms and moving their legs (Kurniawan & Winarno, 2022). Traditional games have a close relationship with children's intellectual, social and character development (Adi, Sudaryanti, & Muthmainnah, 2020). Traditional games are also able to hone aspects of self-control in children, such as children

having the ability to delay gratification, being patient, not easily offended, having self-confidence, never giving up, and so on. (Maulana, D. A., & Riyadi, 2021) states that traditional games can motivate various views of children's development which can include the following conditions. Such as the motor aspect which trains endurance, flexibility, strength, sensorimotor skills. (Kasyanto, 2019) explains that this long-standing folk game needs to be preserved because apart from being fun, entertaining as a sport, and having social value, this sport can increase the potential physical quality of the perpetrator. Based on this explanation, the elements contained. Traditional sports are teachings from ancestors and also have benefits for the body such as fitness and instilling moral values in the sport itself.

One of the determinants in determining whether an athlete excels or not in freestyle swimming is the time recorded. Getting the maximum time record is very much determined by the athlete's physical condition. One of the physical conditions that is trained when playing traditional games is the athlete's speed. Speed is the ability to perform similar movements quickly or the ability to cover a certain distance in the shortest possible time (Harsono, 2018). In addition to controlling the physical technique must also be done correctly to be able to swim more efficiently, This means that less energy is expended but the results can be (Strzała, Stanula, Krężałek, & Ostrowski, 2017). Based on this explanation, apart from physical condition, mastery of freestyle swimming techniques. In swimming, for example, a swimming athlete must carry out similar movements quickly, starting from leg movements, hand movements, so as to form a fast swimming pace. Based on the background problems, developing a traditional game-based

training model using targets is one of the most important things for athletes to improve their performance in swimming, especially in freestyle events. Moreover, nowadays athletes often spend their time playing online games because the training methods are very boring and make athletes less enthusiastic about training activities. The traditional game training model using targets will be able to support athletes' routine training activities so that athletes have good movement skills and have good physical condition, making it easier for athletes to improve their performance in freestyle swimming events. With the traditional training model using targets, athletes can increase their maximum time achievements.

## METHODS

Please This research is quantitative research with experimental methods. This research uses an experimental method which aims to find whether or not there is an effect of a treatment (intervention) by testing the influence of one or more variables on other variables and testing the hypothesis of a causal relationship. Experimental research is used to determine the effect of certain treatments on other treatments under controlled conditions. This research uses a one group pretest-posttest design. Participants will be divided into two groups: a group that participates in traditional games and a control group that does not participate. The samples that will be tested in this research are aquatic swimming athletes in Riau Province with a total sample of 28 people.

The data that has been collected from the pre-test, post-test results is analyzed using normality test statistics and t-test with the first calculation steps. Normality test using Liliefors. The aim of the normality test is to determine whether

the data obtained is normally distributed or not, then to see the influence of the independent variables and the dependent variable, the dependent sample t-test is used. T Test (T Test) The hypothesis is accepted if the significance test value is smaller than a ( $\text{sig} < 0.05$ ). Meanwhile, if the calculated significance is greater than a ( $\text{sig} > 0.05$ ), the hypothesis is rejected.

## RESULT

The aim of calculating normality is from samples that are normally distributed. The normality test is carried out by testkolmogrof-smirnov testshapiro-wilk using spss series 20. The rule used to determine whether a distribution is normal or not is that if  $\text{sig} > 0.05$  (5%) the distribution is said to be normal and if  $\text{sig} < 0.05$  (5%) the distribution is said to be abnormal. So it can be seen in the spss table below where kolmogorov-smirnov  $\text{sig} = 0.185 > 0.05$  so it can be said to be normal. And the Shapiro-Wilk  $\text{sig} = 0.081 > 0.05$  can be said to be normal. So the conclusion is that the pretest data on freestyle swimming speed in Riau aquatic swimming athletes is normal.

**Table 1.** Data Preetes Uji Normality Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	0.138	28	0.185	0.935	28	0.081

The aim of calculating normality is from samples that are normally distributed. The Normality test was carried out using the Kolmogrof-Smirnov test and the Shapiro-Wilk test using SPSS series 20. The rule used to determine whether a distribution is normal or not is that if  $\text{Sig} > 0.05$  (5%)

the distribution is said to be normal and if  $\text{Sig} < 0.05$  (5%) distribution is said to be abnormal. So it can be seen in the SPSS table below where in Kolmogrof-Smirnov  $\text{sig} = 0.124 > 0.05$  so it can be said to be normal. And in the Shapiro-Wilk  $\text{sig} = 0.059 > 0.05$  it can be said to be normal. So the conclusion is that the posttest data on freestyle swimming speed in Riau aquatic swimming athletes is normal.

**Table 2.** Data Posttest Normality Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Posttest	0.147	28	0.124	0.929	28	0.059

**Table 3.** T-Test Paired Samples Statistics Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Paired	Pretest	935.06	28	158.43	29.94096
	Posttest	1140.9	28	203.51	38.45977

The T-Test test is to see the effect of the calculated average in the same group at a significance level of 0.05. Initial test results (pretest) style swimming speed In the Riau Aquatic Pekanbaru Swimming Association athletes, the training group used traditional games with a sample size of 28 people, the mean of the initial test (pre-test) was 935.0587. Meanwhile, the calculated average value (mean) of the final test (post-test) is 1140.9158. The results of hypothesis testing are presented in table 4.

**Table 4.** Uji Hipotesis  
One-Sample Test

Test Value = 0					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
Posttest	29.665	27	0	1140.9	1219.8

Based on the T test results in table 4 for the experimental group, the calculated T value = 29.665 > T table = 2.052 and the sig. (2.tailed) = 0.000 < 0.05. This shows that H0 is rejected and Ha is accepted, thus it can be concluded that traditional games have a significant influence on freestyle swimming speed in athletes from the Riau Aquatic Pekanbaru Swimming Association, Riau Province.

## DISCUSSION

Based on the results of research on the influence of traditional games on freestyle swimming speed with a sample of 28 people, the calculated T value = 29.665 > T table = 2.052 and the sig value. (2. tailed) = 0.000 < 0.05. This shows that H0 is rejected and Ha is accepted. This means the research hypothesis states that traditional games have a significant influence on freestyle swimming speed in athletes from the Riau Aquatic Swimming Association, Pekanbaru, Riau Province. Playing is a very effective approach in carrying out activities. In the sport of swimming, the game is given to athletes as an effort to create a sense of enjoyment by using strategies, methods and materials that can attract athletes' interest.

Swimming competitions are a sport that requires swimming at maximum speed so that the final result is

that the fastest time will be the winner. To achieve the fastest record time, swimmers do not only rely on swimming fast in certain styles of swimming but must also make fast reactions and long jumps when starting, hold on and be fast when underwater. Problems will arise when swimmers are not able to make fast reactions and jump long distances when starting, are not strong enough and are not fast when underwater, so that the final result of swimming speed in certain numbers is not optimal (Narlan et al., 2020). Freestyle swimming performance is the result obtained by an athlete from the efforts made in carrying out freestyle swimming training to achieve maximum peak performance. A freestyle swimming training model is a model that is made or created in training activities to improve the performance or quality of freestyle swimming movements carried out based on a training program. Traditional games are games that are played to improve physical condition in order to support program implementation and achievement. Traditional games are folk games that are played to please and entertain the community (Dharma Sanjaya & Rediani, 2022).

Play is one of the effective approaches in carrying out learning activities in early childhood. Educational efforts provided by educators should be carried out in pleasant situations by using strategies, methods, materials and media that can attract enthusiasts and are easy for children to follow (Howe & Silva, 2018). Playing is an activity carried out by every child, it is even said that children fill most of their lives by playing. Through play, children are invited to explore, discover and utilize objects close to the child, so that the learning or training process becomes meaningful (Ginting, Harwanto, & Hakim, 2020). The traditional game that will be developed is a traditional game

using targets. The aim of traditional games that use targets is to develop active behavior and athletes have skills, knowledge, self-motivation or also known as Physical literacy (PL). is the ability to move, confidence in one's abilities, implementing a healthy lifestyle by adopting an active lifestyle, and having good basic movement skills (Gustian, Supriatna, & Purnomo, 2019). In the traditional game training model, using targets will refer to maximum use of time. In the training model applied, it refers to developing movement skills and encouraging athletes to have confidence in themselves. The target used in traditional games that will be developed is using time. The game is taken from the habits of children who carry out activities to fill their free time in the afternoon at the river. The forms of movement in traditional games will be adapted to freestyle swimming movement techniques (Cendana & Suryana, 2021). Providing time in games is an effort to increase athletes' ability to improve their movement abilities and improve the quality of their movements to achieve maximum time.

Data analysis showed a significant increase in freestyle swimming speed in the group that participated in the traditional game compared to the control group. The increase in freestyle swimming speed in the group participating in traditional games can be attributed to improved motor coordination, physical endurance, and other aspects associated with traditional games. The implications of these findings can provide a basis for including traditional game elements in swimming training programs to improve athletes' skills. Data analysis showed a significant increase in freestyle swimming speed in the group involved in the traditional game compared to the control group. These results provide an

indication that participation in traditional games can contribute to improving athletes' swimming skills. Increased swimming speed can be attributed to factors such as improved motor coordination, physical endurance, and possibly other benefits gained through traditional play. These results provide a basis for considering the integration of traditional game elements in a swimming training program. Although the results show a positive impact, it should be noted that this study has limitations, including sample size and duration of intervention that may influence the generalizability of the findings.

## CONCLUSION

The results of the research show that traditional games have a significant influence on freestyle swimming speed in athletes from the Riau Aquatic Swimming Association, Pekanbaru, Riau Province. The results of the T test in table 4 for the experimental group obtained a calculated T value = 29.665 > T table = 2.052 and a sig value. (2.tailed) = 0.000 < 0.05. This research implies that traditional games can have a positive impact on freestyle swimming speed in athletes. However, further research is needed to understand the mechanisms underlying these influences and adapt the implementation of traditional games in further sports training contexts.

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