

# The Effect of Holding Ball Game on the Backstroke (Streamlined Position) Swimming Skill of the Swimming Extracurricular Participants at Kentungan Public Elementary School

Claudia Megawati Suyanto<sup>1</sup>, Suharjana<sup>1</sup>

<sup>1</sup>Yogyakarta State University, Colombo Street, Yogyakarta, Indonesia  
Department of Sport Science, Graduate School

**Keywords:** Holding Ball Game, Backstroke Swimming, Streamlined Position.

**Abstract:** Swimming is one of extracurricular activities offered by Kentungan Public Elementary School. On the implementation of this extracurricular activity, some participants are only able to master few of swimming styles. It means that they need to learn more styles. Under the reason that they are still elementary school students, playing game on the water is needed to make them learn the styles including backstroke swimming style easily. One of the games which can be used is holding ball game. This research aimed to improve the backstroke swimming body position (streamlined position) of the extracurricular participants which include the members of class II, III, IV at Kentungan Public Elementary School through holding ball game. The type of this research is quasi-experimental. The instrument of this research is in the form of observation sheets showing the successful indicators of backstroke swimming. The subjects of this research are the representative students of grade II, III, IV who join swimming club at Kentungan Public Elementary School Yogyakarta. They consisted of 15 students; 11 male students and 4 female students. The data were collected and then analyzed using hypothesis testing with t-test analysis (paired sample t-test). The data result in the score of  $t_{count} (13,315) > t_{table} (2,132)$ , and score  $p (0,000) < 0,05$ . These show that the score  $t_{count}$  is bigger than  $t_{table}$ , and can be concluded that there is a significant effect of holding ball game on backstroke swimming body position of those extracurricular participants.

## 1 INTRODUCTION

Swimming is one of the sports firstly known by Indonesians through invaders who came to Indonesia. Its swimming organization was firstly formed on 21<sup>st</sup> March 1952 which was named *PRSI (Persatuan Renang Seluruh Indonesia)* at that time, the organization was led by Poerwo Soedarmo. Swimming is a sport branch that can be taught to all ages, starting from babies, children, adults, until elderly (Dwijowinoto, 1979).

The swimming is the floatation of an object in a liquid due to its buoyancy or lift (Badruzaman 2007). In other words, swimming means the floatation effort or lift the body into the surface of water. Bompaa (2000: 35) adds that ideally, learning to swim can be started around 3 to 7 years old. Then, the age of 10 to 12 years old is the age for specialization, and the age of 16 to 18 years old is considered as the golden age for swimmers.

The ideal arm coordination in crawl stroke and backstroke is that they should be in the same stroke as the opposite coordination model in which the two arms must have the power to push (Maglischo, 2003).

The successful swimming indicator of the elementary school students is not determined on how fast they swim the specified distance and how many swimming styles that they have mastered, but it is determined on how many indicator skills they achieve.

Basic motor skills of swimming sport consist of six components, namely (1) getting into the pool, (2) floating, (3) moving the limb, (4) balancing in the water, (5) moving the arms, (6) breathing control (Langendorfer & Bruya, 1995: 8).

Backstroke swimming is considered as an advanced swimming style. It means that swimmers can learn backstroke if they have mastered other swimming styles like breaststroke and freestyle. To make sure that swimmers do not have difficulties in

learning backstroke styles, trainers or coaches must be able to arrange or set the swimming lessons starting from the easiest to the hardest ones in order to achieve the goals in learning backstroke style.

There are two factors which influence the success of mastering backstroke swimming techniques properly; internal and external factors. The internal factors are the influenced factors coming from the swimmers, such as their physical and mental conditions, techniques, strategies. On the other hand, the external factors are the quality of coaches or trainers, the availability of facilities and infrastructures, and the environmental conditions where the teaching and learning process takes place. From those factors, it can be concluded that the internal factors are the dominant factors that affect the ability to swim with backstroke style, one of which is technique factor.

The technique factor in this case includes the body position, arm movement, limb movement, breathing technique and coordination movement. If the swimmers can master those movements properly, it can be concluded that the swimming ability of those swimmers is good enough. The difficulties come up because the swimmers find it difficult to master the backstroke swimming technique well so that mistakes come up and those can cause the difficulties in doing backstroke swimming technique.

One way to collect the data in this research was using field observation. From the conducted observation, there were various mistakes which were made by university students, such as on the body position. Mostly, the body position of the swimmers is not in a line with the water surface or the body position is not streamline and the sight is not straight up so that the swimmers' body cannot float well on the water surface. It causes the swimmers to find difficulty to swim using this style.

The mistakes on the limb movement are caused by the source of limb power that is not from groin. The movement is not balanced with the rotation of the shaft body and the knee position rises above the water level so that it does not produce fast forward movement.

The mistakes on the hand movement are caused merely by the paddling which is begun by the bent elbow. It is also caused by hands' paddling which is too deep or the head does not rotate with the body properly so that the purpose of paddling to push the body forward cannot be achieved perfectly.

The mistakes on the breathing technique is caused by lifting the head too high, focusing the eyesight on looking at the feet, and letting water to

get into the face from above the head so that it causes difficulty to take a breath.

On the other hand, the mistakes on the coordination movement is when both hands are straight above the head and the limbs do not make any movements and the swimmers perform accomplice movements simultaneously so that the swimmers' body cannot slide forward fast.

Learning the basic movements of swimming with the supplementary tools on the learning process at school is determined by some factors, such as students, teachers, learning methods, facilities and infrastructures, environments and learning conditions. Learning the basic movements cannot be separated from those factors in order to achieve the learning goals. In fact, the willingness and participation of the students are needed to succeed in learning process. The roles of the teachers also have effects in terms of delivering materials, teaching methods, and facilitating the students.

Many obstacles are experienced by students in learning the basic swimming movements, such as fear of water, depth, and sinking, lack of conducive learning atmospheres, boring learning processes because of too much drilling and etc. One of the learning approaches to create a cheerful and enjoyable atmosphere so that students will not be afraid is by implementing supplementary tools.

The use of the supplementary tools aims to introduce the general movement problems of swimming, especially on the basic swimming movements and how to swim properly based on the anatomical review. Correcting the basic gestures and improving the motivation of students through the learning process are needed in order to improve the physical fitness of the students. The specific purposes of the supplementary tools usage in learning basic swimming movements are increasing concentration, resisting power, moving reaction, accelerating students' movement, as well as improving confidence and bravery on doing swimming movement.

The representative students of *Kentungan* Public Elementary School Yogyakarta have got a good swimming skill. It is because the students are accustomed to do that kind of water sport. Therefore, the students are believed to have good fitness because they used to frequently make body movements. In the case that the students find it difficult to adapt to swimming sport, it is due to the fact that they must understand how to inhale and exhale the breath properly when swimming. The participants of the swimming club at *Kentungan* Public Elementary School are mostly able to master

few of the swimming styles. There are only few of them who are able to swim in backstroke style beforehand.

Based on the conducted preliminary observation, it can be concluded that the average students who join the swimming extracurricular club mostly find it difficult to perform the streamlined body position while their bodies, bottoms, and limbs are sunk. Through water games, it is believed that the extracurricular participants are helped to learn backstroke swimming easily.

Basically, students like playing games and they will be more excited in doing that activity. Thus, games can help to improve their intelligence to understand a movement that they have not mastered before. Here, one of the games which can be applied to help the students is holding game.

According to Dwijowinoto (1979: 1) swimming is one of the sports that can be taught to all ages, both children and adults. (Badruzaman, 2007: 13) adds that it is the floatation of an object in a liquid due to its buoyancy or lift. Therefore, it also means the floatation effort or lift the body into the surface of water.

Basically, the technique or the mechanical principle of backstroke swimming is the same as other swimming styles. According to Thomas (2002: 25) the techniques of backstroke swimming can be divided into some parts; a) body position, b) limb movement, c) arm movement, d) breath taking movement, e) movement coordination, f) buoyancy. In addition, based on Hurlock (2010: 320) there is none of other fields more proper but to learn how to be a social being because to socialize depends on the opportunity to be connected with peer group, especially occurs in playing activities.

Holding ball game is a game that is played by students by using a ball as the supplementary tool to improve backstroke swimming skill. This game is played by using a big ball as big as 15 cm at the average water depth (not too deep and not too shallow). How to play this game is by asking students to supine facing up and showing a strong leg kick while crossing the pool, then asking them to hold the ball with both hands while firstly putting the ball on the stomach, then after several foot strokes placing the ball on the chest, finally after several foot strokes placing the ball above the head using both straight hands. The position of the body tries to be on the water surface and the bottom should not drown. The position of the head tries to straight up and should not drown too, if the head is drowned, it will be hard for students to breath.

According to Sukadiyanto (2011: 1) practicing is a process heading to a better goal that is to improve the physical condition, functional abilities of body equipment, and psychic qualities of the training. Backstroke swimming practice is still rare to be implemented around the elementary schools in Yogyakarta.

Based on the underlying background above, a research entitled "The Effect of Holding Ball Game on the Backstroke (Streamlined Position) Swimming Skill of the Swimming Extracurricular Participants at Kentungan Public Elementary School".

## 2 RESEARCH METHOD

### 2.1 Research Type

This research belongs to an experimental research. In this research, two kinds of tests were held; pre-test (before) and post-test (after) treatments. The differences between pre-test and post-test results were assumed as the effects of the treatments. Therefore, the results of the treatments are expected to be known more accurately because there are some comparisons between the condition before and after the treatments. The treatments given in this research is in the form of practicing by using holding ball game on backstroke swimming body position (streamlined position) for the representatives of swimming extracurricular participants at *Kentungan Public Elementary School*.

### 2.2 Research Time and Place

This research was held at *Tirta Sari* swimming pool. The pre-test was held on 29<sup>th</sup> September 2018 and the post-test was held on 11<sup>th</sup> November 2018. The treatments were held on 1<sup>st</sup> October 2018 until 9<sup>th</sup> November 2018.

### 2.3 Research Subject

Population is the chosen objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions can be drawn (Sugiyono, 2012: 117). This research uses the representative population from the members of grade II, III, IV who participate on swimming club at *Tirta Sari* swimming pool. The members of grade IV are the dominant population on this research. The total number of the research participants is 15. Then, the teachers of *Kentungan*

Public Elementary School wanted to improve their students' backstroke swimming position.

## 2.4 Research Procedure

The treatments were held 3 times in a week; on Mondays, Wednesdays, and Fridays for 60 minutes as the time allocation for each. The treatments of this research were held for 16 meetings in which 3 meetings were used for pre-tests and post-tests. The 60 minutes for each meeting were allocated into several steps of practicing. Firstly, the treatment was begun with 7 minutes of warming up, then 45 minutes for the core practice, and the rest is for the cooling down and evaluating the whole activity. After the pre- and post-tests were conducted, then the results were finally compared using t-test.

## 2.5 Instrument and Data Collecting Technique

According to Sugiyono (2010: 348) "Research instrument is a tool that is used to measure natural and social phenomena observed". Then, the data in this research were collected using backstroke swimming test. The research process was begun by instructing the students to do warming up. After giving the instructions of how to do backstroke swimming position with both hands straight next to the ears to make sure that the students understood and did not make any mistakes in doing the test. The tools used for the backstroke swimming body position test were a whistle, scoring forms and stationeries. This data collection process was also supported by some parties; a note taker, a timer, a whistle-blowing giver, and a test-runner. The followings were the procedure: a) Test-takers stood by the pool by sticking to the wall while waiting for the whistle signal; b) After the whistle sounded, the extracurricular participants were doing backstroke swimming with both hands aligned beside the distance head as best as they could.

Instrument used in this research was the observation sheets of successful indicator on backstroke swimming done by elementary school students that was validated by the experts.

The data collection of this research was done by using the backstroke swimming skill tests. The extracurricular participants would get the treatments in the form of basic practicing technique and holding ball game for 16 meetings. The measurement included pre-tests and post-tests.

## 2.6 Data Analysis Technique

This research did not employ prerequisite test because this research was a population research where the data were analyzed using t-test. The effect of holding ball game on the backstroke swimming body position (streamlined position) of the swimming extracurricular participants at *Kentungan* Public Elementary School Yogyakarta was analyzed as follows. T-test

This research used the paired sample t test with a significance level of 0,05.

## 3 RESULT AND DISCUSSION

The results of the pre-test and post-test of holding ball game on the backstroke swimming body position (streamlined position) of the swimming extracurricular participants at *Kentungan* Public Elementary School Yogyakarta research could be described as follows:

### 3.1 The Pre-test Data

The pre-test results of backstroke swimming with both hands aligned beside the ears done by the extracurricular participants were obtained a minimum score of 11, maximum score of 21, average score of 12.86, median of 11, mode of 11 and standard deviation of 3.27. Those results can be seen on this following table:

Table 1: The Frequency Distribution Pre-test on The Backstroke Swimming with Both Hands Aligned beside the Ears Done.

No	Interval	F	Percentage
1	20-22	1	6,67
2	17-19	2	13,33
3	14-16	0	0
4	11-13	12	80
Total		15	100

### 3.2 The Frequency Distribution of the Post-test

The post-test results of backstroke swimming with both hands aligned beside the ears done by the extracurricular participants at *Kentungan* Public Elementary School Yogyakarta were obtained a minimum score of 17, maximum score of 24, average score of 18.6, median of 18, mode of 17 and standard deviation of 2,09.

Table 2: The Frequency Distribution of Post-test on The Backstroke Swimming with Both Hands Aligned beside the Ears Done.

No	Interval	F	Percentage
1	23-24	1	6,67
2	21-22	2	13,33
3	19-20	3	20
4	17-18	9	60
Total		15	100

### 3.3 Data Analysis

The data analysis of this research aimed to know the t-test result. T-test results could be seen as follow:

Table 3: The Results of Hypothesis Testing (t-test).

Pretest- Posttest	Df	T table	T count	P	Sig 5 %
Backstroke swimming	14	2.132	13.315	0.000	0.05

Based on the data analysis, it can be obtained that the score of t count (13.315) > t table (2.132), and p (0.000) is < 0.05. Those results showed that score of t count is bigger than t table and p is smaller than 5%. Those results mean that  $H_a$ : accepted and  $H_o$ : refused. Those results can be interpreted that there is a significant effect of holding ball game to the backstroke swimming body position (streamlined position) of the extracurricular participants at Kentungan Public Elementary School Yogyakarta.

### 3.4 Discussion

Based on the data analysis, it can be obtained that the score of t count (13.315) > t table (2.132), and p (0.000) is < 0.05. Those results showed that score of t count is bigger than t table and p is smaller than 5%. Those results mean that  $H_a$ : accepted and  $H_o$ : refused. Those results can be interpreted that there is a significant effect of holding ball game to the backstroke swimming body position (streamlined position) of the extracurricular participants at Kentungan Public Elementary School Yogyakarta. This result is in line with the definition of the game. According to Santrock (2006: 273), a game is very useful form of human self-adjustment. It is helping children master anxiety and conflict. Because pressures are fulfilled in the game, children can overcome life problems. It could be seen from children who previously had difficulties to swim backstroke style, but after the ball game was implemented, they could change their mindset.

Practicing backstroke style was not difficult, but it was easy and fun to do. The extracurricular participants practice based on what Ambarukmi, et al. (2007: 1) claims that sport training is the sport improvement process through a scientific approach based on the principles of practice; regularly and planned. This is to enhance the ability and readiness of the sportsman. Therefore, the extracurricular participants get the opportunity to practice and play holding ball game within 16 meetings. Moreover, by this intensity, according to the principles of practice stated by Irianto, (2000: 19), those extracurricular participants experienced the improvement on the backstroke swimming body position.

## 4 CONCLUSION AND SUGGESTION

### 4.1 Conclusion

Swimming is a kind of sports which has various styles. One of them is backstroke style. Backstroke style has distinctive characteristics and different techniques to be able to train body position, breathing method, limb movements, and arm movements to get maximum results.

The observation was conducted in the beginning prior to the research in order to observe and identify the problems found. From the observation, it turned out that the extracurricular participants could not swim in backstroke style correctly because their bodies were not in streamlined position. It could be seen that their bodies, bottoms, and limbs were drowned.

The research was conducted using a treatment in the form of the holding ball game to improve the backstroke swimming body position (streamlined position) of the extracurricular participants at Kentungan Public Elementary School Yogyakarta. This research applied an experimental research with 16 meetings and 2 meetings for conducting the pre-test and post-test.

The swimming practices in the treatment were held 3 times a week, every Mondays, Wednesdays, and Fridays. The duration on every meeting was 60 minutes. The treatments were held at Tirta Sari swimming pool, Kaliurang Street km 8.5. The total number of extracurricular participants was 15 including the representative students from grade II, III and IV.

Based on the research on chapter 3, it can be obtained that the score of t count (13.315) is > t table

(2.132), and score of  $p$  (0,000) is  $< 0.05$ . Those results can be interpreted that there is a significant effect of holding ball game to the backstroke swimming body position (streamlined position) of the extracurricular participants at *Kentungan* Public Elementary School Yogyakarta with the increasing value of 44,6%.

## 4.2 Suggestion

a) The swimming extracurricular participants who still need to improve their backstroke swimming style can improve their abilities by practicing more, one of them is by using holding ball game; b) Teachers need to always pay attention on the ability of students in swimming by providing learning with a variety of effective training methods. Hopefully, extracurricular participants will be able to perform proper backstroke swimming style; c) The next researcher can conduct a research by taking the wider sample and population so that the ability to swim backstroke style can be widely known as well; d) The next researcher can conduct a research with the different training methods so that the training methods that affect backstroke swimming skills can be widely identified.

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