

## ZN GAMES MODEL TO ENHANCEMENT OF LONG JUMP SKILLS FOR JUNIOR HIGH SCHOOL

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### **Abstract**


*This study aims to determine the improvement of long jump skills by applying the ZN Games model for junior high school students in Palembang. This research was conducted at a junior high school in the city of Palembang. The experimental method used one group's pre-test-post-test design. The sample of students consisted of 40 junior high school students in Palembang City. The data analysis technique is the paired and unpaired t-test analysis technique at the level of confidence  $\alpha = 0.05$ . The results of this study indicate that there is an increase in learning outcomes of long jump skills with the application of the ZN game model. Games, Where the  $t$  value =  $13.05 > t_{table} 2.021$  and the significance value  $0.00 < 0.05$  (2). There is an increase in long jump skills with the ZN game model giving treatment Games. Where the  $t$  value =  $13.05 > t_{table} 2.021$  and a significance value of  $0.00 < 0.05$  (3). There is a difference between students who are given treatment and groups of students who are not given treatment towards increasing long jump skills. The learning method using the ZN Games game model is more effective for improving long jump skills. Where the value of  $t$  count =  $33.471$  and  $t_{table} 2.021$  and a significance value of  $0.00 < 0.05$ .*

**Keywords:** ZN Games, Long Jump.

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## INTRODUCTION

implementation of physical education teaching and learning activities will always be related to physical activity. This means that the implementation of teaching and learning activities prioritizes physical performance, aims to improve physical fitness in students, and emphasizes the basic learning theory of physical education. Physical education is closely related to character values which are very important for students. Such as sportsmanship, honesty, togetherness, enthusiasm, tenacity, never giving up, empathy and sympathy for others. So that physical education and sports can be used as an aspect of the most effective means of character building in students. Subject components in the school curriculum are divided into various branches, one of which is athletics, where athletics have basic movement skills for sports activities such as fundamental, locomotor, non-locomotor and manipulative movements. In learning physical education in schools the process is complex and involves various interrelated aspects. Related to that Physical education teachers can create the latest innovations that enhance the development of the globalization era, such as in the present time in learning, this effort can increase effective learning, creativity to improve movement skills in students, In learning in junior high school students, among others, is improving coordination in basic movement skills, developing endurance and steady growth, good eye and hand coordination, bad posture may be shown, sex differences do not cause major consequences, physiologically female students generally reach maturity earlier than male students . In physical education learning, junior high school students have begun to be given the basics of standard techniques in sports but emphasize the introduction of basic movement patterns. So that students are able to master basic techniques in a systematic and directed manner.

Long jump learning, especially at the junior high school level with a play approach, has the benefit of providing a complete learning experience. In an effort to foster relationships with fellow students (such as: cooperation, recognition of the

strengths of other students, and media in channeling feelings of pressure from students. With the play approach method, the teacher can create or come up with the latest ideas on how to use play activities to develop various various aspects of student development, such as: physical development, motor, *social-emotional*, personality, cognition, and sports skills. The teacher's task in order to optimize the learning process is as a facilitator who is able to develop innovative learning conditions in order to create a fun learning environment for students (Prasetyo, 2016). To create innovative learning, of course the teacher must have new breakthroughs such as media. The use of instructional media is a way that can be done to overcome the obstacles encountered in learning so that learning can run effectively and efficiently. The use of instructional media is very influential in the teaching and learning process, for that teachers are expected to be able to make related materials from the latest learning innovations so that they can create changes in physical education materials in improving skills in sports. The teacher's task in optimizing the learning process is as a facilitator who is able to develop innovative learning conditions in order to create a learning environment that is fun for students. To create innovative learning, of course the teacher must have new breakthroughs such as media. The use of instructional media is a way that can be done to overcome the obstacles encountered in learning so that learning can run effectively and efficiently (Rizal, Kurniawan, 2014). Long jump skills are one of the athletic branches that require special skills, because the number long jump, students can do and master the basic techniques of the long jump movement, namely being able to master the technique, start, support, drift to perform the jumping and landing style properly and correctly, and these basic techniques must be learned and trained which requires relatively sufficient time It takes a long time to produce a good leap in student motor skills and a large contribution to the success of special movements, while other opinions state that motor skills are a manifestation of changes that are permanent in moving behavior, with the results of learning activities or experiences. In motor skills competencies as

shown in the motor development of students Although motor skills development is a nonlinear, self-regulating process that is driven by task, environment and organisms (Hoeboer et al., 2018). The long jump movement has a dynamic movement and requires speed, agility. This is in accordance with the characteristics of play at the age of children, where children prefer, including jumping movements, children aged 8 to 13 years are the best time to learn dexterity including the long jump movement. The simple concrete form of this play approach is in the form of challenging motion tasks that are designed to be close to real experiences or actual situations, and are specific basic motion tasks that can stimulate students actively, with great joy over a long period of time. for athletic learning. So that through this athletic play a strong athletic foundation can be formed, which at the next stage of development can improve specific skills in all athletic numbers. Like box jumping games, yeyeKaret and many more games with a playing approach.

Based on these opinions, long jump skill is a person's skill to perform a series of basic movements of the long jump technique simultaneously and simultaneously, to produce long jumps, because he has the skills to carry out a series of long jump movements without any obstacles or confusion, starting from the initial movement. running with a certain distance, stepping on the foot on the pedestal board, drifting to do a jumping force and landing in the sandbox. In previous studies, the game model for long jumps already exists but has not been optimally realized with the novelty of the Perminan from ZN games. Junior high school students, the game is based on the basic long jump technique, by including psychological values, the game is made fun so that students can do it well. The lack of teacher innovation in providing material makes students lazy to do sports activities, with the learning model provided by the teacher is too monotonous so that physical education learning does not run according to goals optimally. One solution to these problems the teacher must be able to make innovative

learning models, one of which is making a learning model with a play approach as one to improve student movement skills.

The model used in this study is the ZN game which contains from the basic long jump technique, the games are made into three categories. 1) a game in which there are elements of the basic technique of jumping starting from the prefix, 2). support and 3) repulsion. Then the game model is structured systematically from easy, medium and difficult movements according to the characteristics of junior high school students, which are expected to improve long jump skills for junior high school students and also be able to solve student problems in doing long jump movements properly and correctly.

### **Games**

Games are the same age as humans, when and where there are humans there is also game ". Games are an activity favored by all children, adults, young people, men and women who all like to play. Playing means learning to adapt to the environment, using surrounding objects and doing it together with people. around him (Dwijawiyata: 2013). According to Darmawan, he said that the team game application can increase student motivation, so this research can be used as a consideration for teachers who want to use team game applications such as game fighting, walking with the ball, running to move hoops, jumping in pairs as alternative media in learning. basic motion (Darmawan: 2012). Games, play or equivalent words in English are called "games" (noun), "to play" (verb), "toys" (noun) comes from the word "play". In the Indonesian dictionary, the word main means "to do an action (Widiastuti&Pratiwi, 2017). When students play games in the hope of the latest innovations that aim to influence social change, with play students are also expected to have social innovations, such as dynamic activities and interactions, the mantis system towards people around the people around them, to produce other new innovations. Playing activities can have a relatively permanent effect. Playing will have an effect on improving the physical,

psychological and social qualities of children. From a physical aspect, playing can improve the function of organs such as the heart, blood vessels, lungs, muscles, bones, joints, improve metabolism in the body, reduce body fat and balance cholesterol. From a psychological aspect, playing causes children to be more resistant to stress and more able to concentrate, besides that it can increase feelings of achievement. From the social aspect, playing can increase self-confidence in children, cooperation and as an effective means of communication. The characteristics of the game that are beneficial to student development are (1) Move, which means moving, meaning that there must be a movement that is carried out continuously and rhythmically. This movement can increase cardiovascular endurance and improve body composition. (2) lift, which means that in the game there must be an element of motion against the load. This movement will train muscle strength and endurance, and, (3) Stretching, meaning that the game must contain elements of motion to stretch joints, including stretching muscles. This movement will train muscle joint flexibility (Sumarsono, 2017). Using the game method in learning can support good physical development and mental health. Play facilitates children in physical activities, including sports activities, which allow increased coordination and body balance, and develop skills in children's growth. The contribution to mental health is helping children to build and develop resilience (Veldman et al., 2018). The game approach has been widely accepted by students, primarily designed to produce fun, challenge, creativity, problem solving, and student motivation so that students are able to explore in every lesson and are also able to optimize learning according to the main objectives of the learning.

Based on the description above, it can be concluded that the insight through the Play model can be a reference and infrastructure suggestion so that the material provided by the teacher can be accepted by students, which we already know about the characteristics of students who tend to use the playing method can create a pleasant

atmosphere, a sense of comfort so that achievement objectives and giving learning materials can be implemented in accordance with optimal achievement.

### **Long jump**

Jumping is one part of athletic sports. In athletic sports, there are several types of jump numbers, namely long jump, multi-jump or triple jump, high jump and pole-jump. These four types of jump numbers are always taught in Physical Education learning, so that students know the jump numbers that are always contested (Sumadji, 2015). Long jump is one of the numbers that can be found in the athletic sport of the jump number. To produce maximum jumps, a learning process is needed that leads to the selection of a learning approach for Long jump is one of the numbers in athletic sports that are competed officially at both the national and international levels, in the official championships of jump, run, throw and road numbers) athletics must be completed. The other jump numbers are: multiple jump, high jump and pole jump. The Standard jumping events in track and field are the long jump, the triple jump (formerly known as the hop, step, and jump), The high jump, and the pole vault), (G Hayjames, 2005). Long jump is one of the numbers that can be found in the athletic sport of the jump number. To produce a maximum leap, a learning process is needed that leads to the selection of a learning approach (Yani, 2015). In the basic technique of the long jump, it is a summary of the methods used in carrying out movements in a sport. Technique is also a process of movement and proof in a sport, or in other words, technique is the implementation of an activity effectively and rationally which allows an optimal result in training or competition. long jump and high jump. Long jump is part of the jump number in athletic sports, which technically and in practice is different from other jump numbers such as high jump and multi-jump (Maksum, 2017).

In general, the purpose of the long jump is someone who wants to produce the distance of the jump, in other words he can make the jump as far as possible by using good and correct basic techniques and to measure the result (distance) of the jump is

measured from the fall of one of the limbs closest to pedestal board, from the edge of the pedestal closest to the landing area in the sandbox. In general, there are components that can be used for the basic long jump technique that can result in long jumps, namely speed when running, strength and power in the leg muscles during repulsion, coordination, and flexibility when floating in the air and making a landing both in the sandbox (Sukirno, 2019).

## METHOD

In this study, using a model method using an experimental research design in the form of "*one group pretest-posttest design*". namely the research design that contained a pre-test before being given treatment and a post-test after being treated, thus it could be known to be more accurate, because it could be compared to that which was held before being treated (Sugiyono, 2010).

Thus the results of treatment can be found to be more accurate, because it can compare with the conditions before being given the treatment. In this study, the population was students of class IX in the city of Palembang. The sampling technique used in this study was purposive sampling, because the sampling technique used in this study involved all members of the population used as the sample. Sugiyono said that: "Saturated sampling is a sampling technique when all members of the population are used as samples" (Sugiyono, 2016). The sample used in this study were 40 students with 20 male students and 20 female students. The instruments used to obtain data regarding optimal learning outcomes.

## RESULTS AND DISCUSSION

In this study, there were 40 students of class IX SMP in Palembang. The data analysis test used t-test by comparing the *pre-test* and *post-test results* in the experimental group. Prior to the hypothesis testing, the prerequisite test was carried out with the normality and homogeneity tests. To find out that the ZN games game model can improve basic movement skills in the long jump, where students have the



opportunity to carry out a series of basic movements from the long jump technique, the scores will be recorded according to what wrong movements are made by students, the instrument in this study is a technique. basic long jump, which uses a scale *Likert*

**Table 1.** Descriptive Test of Pre-test and Post-test Long Jump Skills

	N	Minimum	Maximum	Mean
<i>Pre-test</i>	40	7	11	13.05
<i>Post-test</i>	40	11	17	16.15

Based on the table above, it shows a significant increase in students who have been treated with the ZN games game model and students who have not applied the treatment of long jump skills with an average pre-test score of the sample is 13.05. Students who get the largest percentage are at the 24th interval with a value of 13, namely 9 students or 22.5% and the number of students who obtained grades below the average of 16 students or 40% and the number of students who obtained grades above the average were 25 people or 62.5% . and the post-test score of 16.15. Students who obtained the largest percentage were at the 25th interval with a value of 17, namely 11 students or 27.5%. Students who obtained grades below the average were 14 students or 35% and the number of students who obtained grades above the average was 26 students or 65%. This indicates that there is an increase in the average sample value.

### Normality Test

Test Results of normality testing on the *pre-test* and *post-test* learning outcomes can be seen in the table below: The Normality *post-test* of the Experimental group and the control group in this study was used to test the data obtained whether the data

was normally distributed or not, carried out using the test *Lilliefors, Sig (2-tailed)* > than 0.05, so the data can be said to be normally distributed.

**Table 2.** Normally Test

Lo	$\alpha$	Ltab	Ho
0.1128	0.05	0.140089	Denied

Based on the normality test using liliefors with a significant level of  $\alpha = 0.05$ , it was obtained that data  $Lo < L$  table  $0.1128 < 0.1400$  so that  $Ho$  is rejected. So it can be concluded that the data is normally distributed.

**Table 3.** Normally Test

Lo	$\alpha$	Ltab	Ho
0.110909	0.05	0.140089	Rejected

Based on the normality test using liliefors with a significant level of  $\alpha = 0.05$ , it was obtained that data  $Lo < L$  table  $0.1109 < 0.1400$  so that  $Ho$  is rejected. So it can be concluded that the research data is normally distributed.

### The homogeneity

Test was conducted to determine whether the variable data *dependent* had the same variant in each category of the variable *independent*. To find out the variable *independent* is homogeneous or cannot be known by testing Test variance *Bartlett's*. The basis of analysis used in making decisions uses a significant level of 5% or ( $p > 0.05$ ).

**Table 4.** Homogeneity Test

group	db	$\alpha$	X-hit	X-tab	Decree
4	3	0.05	2.951	7.82	Homogeneous

Based on these data, it can be explained that the test group with a significant level of  $\alpha$  (0.05) with db (3) obtained X-hit 2.951 and X-tab 7.82. Thus it can be concluded that the X-hit < X-tab so that the research data between the control group and the experimental group are homogeneous.

### Hypothesis Test

**Table 5.** Effect of ZN Games Game Methods Against Long jump skill

Average	T-test	Sig
	Thit	Ttab
13.05	33,471	2,021
16.85		0.05

Based on the data analysis above, it was obtained  $t_0$  of 33.471 and  $t_{table}$  2.021 with 39 degrees of freedom and  $\alpha = 0.05$ . Thus,  $t_0 = 2.021 > t_{table} = 2.021$  or  $H_0$  is rejected. Because  $H_0$  is rejected,  $H_1$  is accepted, there is an increase in long jump skills by repeating the treatment of the learning model with the *ZN Games* method because of that the learning process using the ZN games game model has the advantage of increasing the basic technique of jumping. In implementing learning, the material given by the teacher is directly focused on the long jump process and can respond directly to the instructions given. The progress of the results of the long jump skills is monitored by the teacher, so that the teacher will know to what extent the learning outcomes

achieved by junior high school students in the city of Palembang. The difference between the long jump skills learning outcomes for students after being given the long jump skills learning model in the pre-test and the final test.

## CONCLUSION

Based on the results of needs analysis, expert validation, field trials, effectiveness tests and discussion of research and development results on the ZN Games Model To Enhancement Of Long Jump Skills For Junior High School product, the following conclusions can be drawn:

1. The ZN learning model for improving long jump skills for junior high school students can be developed and applied in the learning process.
2. The developed ZN learning model is effective for improving long jump skills for junior high school students and can be developed and applied in the learning process.

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