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# CONTRIBUTION OF TWO LEARNING METHODS ON BASKETBALL LAY UP RESULTS

**Adi Sumarsono and Syamsudin**

Department of Physical Education, Health and Recreation Faculty of Teacher and Education,  
Universitas Musamus, Merauke, Indonesia

## ABSTRACT

*This study aims to determine the comparison of demonstration methods and role playing methods to the learning outcomes of lay ups on basketball games. This research is an experimental research. The subjects in this study were students of class VII D and class VII F of middle school (SMP Negeri 2) Merauke. In each class the same material is given, namely the basic lay-up shoot technique in basketball games. Analysis of the data used in the study is description analysis and inferential statistical analysis. The treatment is given in the learning process by using demonstration methods and role playing methods. The results of this study are: There are differences in learning outcomes of basic lay-up techniques before and after being taught using demonstration methods and role playing methods. And in the two difference test, on average there are significant differences in the learning outcomes of students who are taught to use role playing learning methods more effectively used as learning materials for basketball lay-ups compared to the demonstration method. From this study the main findings are that the learning method is said to be suitable or effective to be used in learning to adapt to the characteristics of the students being taught. Through the use of varied learning methods can encourage student motivation in carrying out motion tasks*

Keywords: Learning Method, layup, basketball

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## 1. INTRODUCTION

The material from the Physical Sports and Health Education (PJOK) lessons given at school is a compulsory subject given to students. In addition to aiming to achieve the level of fitness of students, PJOK is also used as a learning tool in understanding the various motion activities that are appropriate to the sport. Physical education is a process of systematic interaction between students and the environment that is managed through physical development effectively and efficiently towards the formation of whole people. PJOK material at the Middle School level there are big ball games and small balls and games that actualize the movements of each

individual student. Big ball games have basketball game material in which there is a reference to core competencies, namely learning the basic techniques of the lay up shoot. Lay-up material is given in the hope that students can get to know and can practice advanced motion in which there is motion coordination in carrying out a series of lay-ups that are correct.

A teacher with the characteristics possessed can express in delivering learning material using different methods. This can be influenced by the ability of the teacher, the condition of the student or other considerations used by the teacher in delivering learning material. The teacher in providing material follows directions from the applicable curriculum. To achieve the objectives of learning outcomes, a teacher can use certain media, methods and methods. One of the things that teachers use in teaching students is by learning methods. The many types of learning methods can be chosen by a teacher as an alternative to teaching success. The demonstration method is not a strange method of learning. Demonstration methods are often used by PJOK teachers in teaching new types of motion that are directly practiced by teachers and imitated directly by students. In addition to the demonstration method, there is a role playing method that is also used by a teacher in providing practical material in the field.

Based on the results of observations conducted at the Merauke State Second Middle School, especially in class VII, information was obtained that on average students thought physical education learning was one of the preferred subjects. Reasons for opinions are one of the favorite lessons because physical education subjects have practice material outside the room. As for the things that can be caught during the PJOK lesson hours on lay up practice material on basic basketball game techniques, problems are encountered that students are not sure to do a combination of lay up motion techniques that are correct in accordance with the material described by physical education teachers. Most female students claimed to be afraid of being wrong in doing the basic lay-up movement. The expected learning outcomes are not in accordance with the expectations of completeness that have been set by the school.

This study was deliberate by applying two different learning methods with the same material. Therefore, in different lesson hours, two different treatments were carried out in different classes in the hope that they could be compared to the learning outcomes of students who were taught using demonstration methods or more effective role playing methods in basic lay-up techniques for basketball games. Standard Competency Standards if narrowed by understanding in school there is material that has been determined by the applicable curriculum. A teacher can express himself in the learning process by prioritizing the delivery of learning material. The most strategic activity in conducting the teaching and learning process is the selection and determination of learning methods before the learning process is carried out. Through effective learning students will find it easier to capture learning material and carry out motion tasks given so that the objectives of the learning can be achieved well (Sanjaya, 2010). The material taught by a teacher can provide a serious understanding in teaching. In teaching the types of practical material in the field, the process of learning motion can be done with learning that has been adapted to the characteristics of students. When teaching a form of movement skills, it is appropriate for the teacher to pay attention to the level of growth and the development of the student's ability to move not merely the goals to be achieved because it is a goal contained in the curriculum (Husni, 2012). Therefore a teacher not only teaches material because learning problems alone but can facilitate the growth and development of these students.

The age of school children will experience the learning process by making effective movements. Children will move a lot and get progress because they often practice and get older (Gumay, Dlis, & Maharani, 2018). The lessons in both private and public schools include physical education subjects. Physical education is a vehicle that is able to educate humans to approach the perfection of life which naturally can make a real contribution to daily life (Ramadan & Iskandar, 2018). Through physical education the need for movement in stimulating student growth can be

facilitated by physical education motion material (Sumarsono, 2018). Health experts agree that exercise can improve physical fitness which is characterized by increased functioning of the heart, blood vessels, respiratory system blood circulation and metabolic processes, and the body's ability to ward off various diseases both caused by infection and non-infection (Sitepu, 2018). Based on the explanation above it can be concluded that physical education is an important type of subject for education, facilitating physical growth as well as through education practices achieved by increasing student fitness it is very positive to support other learning processes.

Material for physical education is a big ball game, including basketball. Physical education in its purpose is not to study certain types of sports techniques (Sumarsono & Sianturi, 2018). One of the basic techniques taught in basketball game material is the lay up shoot movement. The lay up movement is taught to students with the aim of facilitating the movement of coordination of students who have the type of foot, hand and eye coordination. All members of body movements are carried out in forming movement skills in scoring numbers. The definition of shoot lay up is an effective type of shot because it is done from a distance that is as close as possible to basket basket through jump-step-jump (Kurniawati & Apreliani, 2016). Whereas another opinion to interpret Lay-up is an effort to enter the akering bol or basket basket in two steps and jump in order to reach the point. Lay up is also called a flying shot. Usually lay ups are often done by cutting or pushing (cut or drive) (Nuryadi, 2016). Lay up shoot is part of the movement in scoring numbers in playing basketball through the bottom of the ring by jumping. Shoot lay-up is a motion that is complex in that there is a combination of coordination movements from the limbs. A well coordinated movement will cause the lay-up shoot material to be tended to be carried out by students, a lot of movement errors occur.

Through the development of advances in learning and identification technology, motion can be organized based on strategy efforts in scoring numbers, basketball coaches apply special stimulation in making numbers. Exercise is a systematic process in practice or work done repeatedly to get the expected results. Systematic is well structured and well-planned which starts from the easiest pattern that is more difficult. Repeatedly is a practice activity many times so that it is accustomed to and gets motion automation (Darmawan, Januarto, & Wahyudi, 2016). In attempting to automate motion, efforts are made to filter out the types of gerasi which are very effective in supporting the success of motion. The type of shot is carried out as close as possible to basketball which is preceded by a jump-jump. Lay-up shots can be done by being preceded by running, herding or cutting and then running and heading towards basketball (Dwitama, 2018). Lay-up techniques to date are increasingly varied elements that need to be considered in lay-up techniques there are several kinds, including footsteps, hand-out and jump. Every basketball player must learn and be able to do lay ups with his right hand or left hand, even if he follows hand stretching when doing lay up techniques (Nugraha, 2018). Through structured learning planned physical education learning can be done in a maximum of course within the limits of education in school.

## 2. METHODOLOGY

This research is an experimental research. The design used in this study is carried out on procedures such as table 1 below:

**Table 1.** Design of research methods

Group	Pretest	Treatment	Posttest
I	O <sub>1</sub>	Demonstration	O <sub>2</sub>
II	O <sub>2</sub>	Role Playing	O <sub>2</sub>

In experimental research in group one, treatment was carried out with demonstration methods in the process of learning physical education with basic lay-up shoot techniques in basketball games. Whereas in group two the learning process of laying up basketball games using the role playing learning method. Each of the learning processes is carried out by following the research procedures as follows:

1. Preparation

In the initial stage of the research before being treated to students, material prepared in the form of learning plan (RPP), preparation of instruments consisting of observation sheets, tests and interview guides. In addition to preparing instruments and RPP, observers were also prepared in the two classes given treatment.

2. Implementation

At the implementation stage the pretest was carried out before treatment and posttest after being treated. The treatment was carried out with basic lay-up techniques both carried out in the classroom theory and continued outside classroom practice. The Observer who has been appointed in this study performs tasks in the learning process.

3. Evaluation

The evaluation was conducted twice, namely at the pretest and at the posttest. Assessment is carried out in two domains, namely cognitive aspects and psychomotor aspects of students. The virtue in this study is mastery of motion in the form of motion performed by each student.

The samples used in this study are two different classes, namely class VII D and class VII F. The consideration in sampling is based on random sampling. The data analysis technique used in this study includes descriptive statistics and inferential statistics.

### **3. RESULTS AND DISCUSSION**

#### **3.1. Data Description**

This study aims to compare two learning methods to the learning outcomes of basic lay-up techniques in basketball games. Two learning methods obtained two data each from the pretest data and from the posttest data. This research was conducted for three meetings in two classes which were given the same material, but using different methods, namely demonstration methods and role playing methods. The basic lay-up technique material includes theoretical material and practice material.

Based on the explanation from the data above, it can be explained that descriptively, two learning methods namely demonstration method and role playing method obtained pretest and posttest data. Based on the mean data on each learning method that has been carried out has increased value. In the group of learning methods using the demonstration method, the average n-Gain was 0.35. There is an increase in learning outcomes in the lay-up material using the demonstration method, which falls into the medium category. Whereas in the learning method group using the role playing method obtained an n-Gain average of 0.45. There is an increase in learning outcomes in lay-up material using the role playing method, which is in the medium category.

Based on the description data above, it can be explained that before conducting learning using demonstration methods and the method of role playing on students. on the pretest data on the learning outcomes of students in each class the basic technical material for basketball lay-up has not increased. Furthermore, pretest data is also used in the reference group division between those who use the demonstration method and those who use the role playing method. Based on the pretest data, it was explained that there were still many students who did not understand the basic

motion of the lay up and the sequence of steps according to the theory of basic learning techniques. While the posttest results have obtained an increase in value, namely the learning outcomes that have reached the school objective.

### 3.2. Hypothesis testing

Based on the description of the data description above, the explanation of the experimental data is then inferential statistical analysis, in this case the statistics used are hypothesis testing which was put forward in this study. Before the hypothesis test, the parametric analysis requirements are tested, namely the normality test and the data homogeneity test. Based on the results of the normality test using Kolmogorov-Smirnov. The results of the normality prerequisite test in this study can be seen in the following table 2:

**Table 2.** Data Normality Test Results

Data		Kolmogorof-smirnov	Asymp Sig (2-tailed)	Remark
Methods Demonstration	Pretest	0.644	0.876	Normal
	Posttest	1.007	0.355	Normal
Method Role Playing	Pretest	0.603	0.666	Normal
	Posttest	0.855	0.255	Normal

Based on the results of testing the normality of data, involving pretets data and posttest data in the class given normal distribution method demonstration treatment. As well as testing the principles on data with class treatment using the role playing method with normal distribution. Then the precast test was followed by a homogeneity test. Both data from the results of the implementation of the two treatments in the two classes carried out homogeneity tests using the Lavene test with the help of SPSS 20.0 with a significance level of 0.05. The results of testing homogeneity can be seen in table 3 below:

**Table 3.** Homogeneity Test Results

Data	Lavene	Asymp Sig (2-tailed)	Remark
Pretest (M. Demonstration-M. Role playing)	1.878	0.211	Data Homogen
Posttest (M. Demonstration-M. Role playing)	1.645	0.143	Data Homogen

Based on the above data it can be concluded that the data obtained from the demonstration method and the role playing method come from a homogeneous population. Then after the pra test and it is known that the population is normally distributed and the second variance is homogeneous, then the parametric test is followed.

a) Test the First Hypothesis

The first hypothesis is used to answer the problem formula to find out whether there are differences in learning outcomes of basic lay-up techniques before and after being taught using demonstration learning methods and using the role playing method. The results of the discussion using SPSS based on paired sample t-test analysis obtained tcount = 9.23 with a significant level of 5% obtained t table = equal to 3.06 so it can be concluded that Ho is rejected and and H1 is accepted. Thus it can be concluded that there are differences in the learning achievement of basic lay-up techniques in basketball games before and after being taught using the demonstration method. While the results of the calculation of hypothesis 2 test obtained thitung = 8.34 with a significant level of 5% obtained ttable = 3.22 so that it can be concluded that H1 is accepted which means there are differences in learning outcomes of basic techniques

of lay-up basketball games before and after being taught using the role method playing.

b) Test the Second Hypothesis

After answering the formulation of the first and second problems then the second hypothesis was tested to answer the third problem formulation, namely the difference in the average learning outcomes in the basketball game lay-up material. Testing hypotheses using statistical tests independent sample t test two parties. Based on the results of the calculation of the difference test two average on pretest data obtained  $t_{hitung} = -0.58$  while the table using a significant level of 5% is 1.886. This means that  $t_{count} < t_{table}$ , so that  $H_0$  is accepted this means that there is no significant difference in the learning outcomes of the basic techniques of basketball game lay-up of students before being taught using the demonstration method or using the role playing method. Furthermore, in the calculation of the test of the difference in the average of two at the posttest, it is obtained  $t = 1.991$  while the t table with a significant 5% is -0.49. This means that  $t_{count} > t_{table}$  so that it is accepted that  $H_0$  reads that there is a significant difference in the learning outcomes of the basic lay-up techniques in basketball game material using demonstration methods and role playing methods.

### 3.3. ANALYSIS OF OBSERVATION DATA

Apart from the calculation of the results of the above research, observations were also carried out in this study. In observation activities that have been carried out direct observation of the learning steps in accordance with the demonstration method and the method of role playing. The overall observation results show that the learning process is almost 100%, this indicates that the learning step is in accordance with the lesson plan that has been prepared from the beginning. In addition, observations were also made on the activities of class students who were given treatment using demonstration methods and the method of role playing. The results of observations on student activities are as follows:

a) Data Aktivitas Siswa pada Kelas Metode Demonstrasi

The observation results of student activities in the class given the treatment of learning using demonstration methods can be seen as an increase in the percentage of students in field practice in carrying out basic lay-up techniques provided by the teacher. Improved aspects of understanding motion steps occur in lay-up learning. The opposite of learning has decreased, this gives a positive thing. On the motion aspects of student automation has increased at the third meeting. Gradually students pay attention to the example done by the teacher.

b) Student activity data in the Class Role Playing Method

In addition to observing the activities of students in the demonstration class, observations were also conducted on the class given the role playing method. The results of observations on the role playing class can be explained an increase in the percentage of the number of students in field practice in doing basic lay-up techniques provided by the teacher can be seen from the percentage of 100. Increased aspects of understanding the motion steps occur in lay-up learning. In the second aspect the third meeting increased to a percentage of 100. With role playing activities taught by each student resulting in an increase in understanding, coordination and motion regulation in carrying out basic lay-up motion techniques in basketball games. The habit that happens to be a learning process for female students who are still less active, in learning activities using the role playing method, female students are more active because of the role played by students.

### 3.4. Discussion

This research is an experimental research, by providing the same material namely the basic lay-up technique with different treatments in two different classes. The samples in this study were class VII D and Class VII F. The learning process in the experimental treatment each three meetings, where each meeting for 3 x 40 minutes. Two classes in learning were treated using the demonstration method in class VII D and the role playing method in class VII F.

The observation results of each learning method can be explained as follows, in the repetition demonstration learning method carried out in the learning process the teacher is very skilled in providing examples of lay up movements in accordance with the appropriate stages of motion. Repetition carried out on the teacher when conducting a demonstration. Students are given the time of observation in the field explained by the teacher. The effectiveness of learning is also done so that students can imitate and be given the opportunity to ask questions in the learning process. In the example aspect which is done simply get the highest average score with a very good category. The response of students based on the results of observations shows that the tendency of students to pay close attention to the lay-up movement stage.

The results of observations from the implementation of role playing learning methods that have been carried out were obtained, namely, the teacher in teaching lay-up material was very pleased by students, the role playing method of students doing more motion tasks. Based on knowledge and understanding carried out together with friends. Based on the results of collaborative observations and explanations of repetition in the form of direct discussion, it was practiced to get a very good category. Furthermore, based on observations to students, the fact is that junior high school students according to their characteristics can find out the ways of learning discussed. The activeness of students in this case has a very good category in carrying out motion tasks through role playing.

This research is an experimental research, while what has been done in the research is by giving different treatments to different classes. The subjects involved in this study were students of class VII D and students of class VII F of SMP N 2 Merauke. The learning process includes material theory and practice that is given with the tendency of practice material in the field in accordance with the material of Lay Up basketball. Learning is carried out three times in each physical education lesson. In each lesson each uses demonstration methods and role playing methods. In learning physical education subject matter lay-up basketball games students are emphasized mastering, understanding and continuing actively in the pattern of motion so that the material conveyed by the teacher can be understood and understood. Both learning methods each have advantages and disadvantages in applying the learning process. Understanding, application and discussion from the results of student movements. After students understand the motion that is carried out, they can then apply the lay-up according to the direction and theory.

#### 1. Lay Up Learning Materials Basketball Games Using Demonstration Methods.

Before giving lay-up material using the demonstration method students seemed still awkward in carrying out the motion assignments given by the teacher. Based on the results of observations, followed by assessments in the form of performance, it was found that students were still incomplete in mastering the basketball lay-up material. After studying the existence of students in learning it is known that students still cannot do combination movements in the basic techniques of motion lay up. Students' difficulties are influenced by the complete coordination movement of the lay-up which consists of steps, jumps and hands inserting the ball into the space. The next experiment was carried out in physical education learning with lay up material. In class VII D learning was done by using the demonstration method. In the demonstration method, learning is focused on the teacher by teaching techniques according to the correct stages of motion. In addition to the demonstration, the teacher

also used video media as a learning medium which can be directly observed by students. Demonstrations carried out by the teacher and direct observations on the video were used as examples of doing the right moves.

2. Lay Up Material Learning Using the Role Playing Method.

As in class VII D, which was given in class VII F, learning was also carried out by prioritizing lay up materials using the role playing method, at the beginning of the lesson students experienced difficulties in doing lay ups. Only certain students who have joined the extracurricular basketball school can move according to direction. Especially the majority of female students are still unable to do the lay up properly. During the learning process the teacher directs the role playing method. The natural benefits that occur in students of class VII F, through role playing students can take on the task of motion alternately.

#### 4. CONCLUSION

Basically the methods used in learning are not named according to or match the character of students. Through this research it can be concluded that with the direction of the teacher who is the main actor in directing learning can be distinguished learning outcomes in each class. Through this research, it was concluded that the role playing method carried out at the junior high school level provided its own color in teaching. The thing that becomes a record of this learning method is that students are more courageous to try out their role as perpetrators of motion tasks without waiting for instructions or examples from the teacher. The demonstration method in this study can be said to be effective in providing examples of motion, but if continuing demonstrations by the teacher result in students just waiting for the motion assignment because to do the lay up must use the ring which is done alternately. Ineffective learning because students only see but are unable to find the type of error and improve it to improve lay-up material.

#### REFERENCES

- [1] Darmawan, A. B., Januarto, O. B., & Wahyudi, U. (2016). Pengembangan Model Latihan Kombinasi *Dribling, Passing, dan Shooting* Peserta Ekstrakurikuler Bola Basket di SMP Negeri 2 Kota Malang. *Jurnal Pendidikan Jasmani Vol. 25 No. 02*.
- [2] Dwitama, A. (2018). Pengaruh Metode Praktek Terhadap Belajar *Lay Up Shoot* dalam Pembelajaran Bola Basket. *Jurnal Biormatika Vol. 4 No. 1*.
- [3] Gumay, J. R., Dlis, F., & Maharani, I. N. (2018). Model Latihan Keterampilan *Lay Up Shoot* Bola Basket Berbasis Permainan usia 12-14 Tahun. *Jurnal Penjaskesrek*.
- [4] Husni, Z. (2012). Peningkatan Keterampilan *Lay up Shoot* Pada Permainan Bola Basket Melalui Prinsip Urutan Latihan. *Jurnal Penelitian Pendidikan Vol. 13 No. 1*.
- [5] Kurniawati, N., & Apreliani, A. P. (2016). Pengaruh Latihan *Depth Jump* terhadap Hasil Lay Up Shoot Pemain Basket. *Jurnal Ilmu dan Teknologi Kesehatan Vol. 3 No. 2*.
- [6] Nugraha, P. D. (2018). Pengaruh latihan *lay up* 6 tahap terhadap hasil lay up pemain putra usia SMP pada Sekolah Basket Smiling Java-Boyolali. *Journal Power of Sports Vol. 1 No. 1*.
- [7] Nuryadi, A. (2016). Pengaruh latihan Plyometrics terhadap Peningkatan Keterampilan *Lay Up* BolaBasket. *Jurnal Wahana Vol. 66 No. 1*.
- [8] Ramadhan, G., & Iskandar, D. (2018). Pengaruh Gaya Mengajar dan Motivasi Belajar Terhadap Hasil Belajar *Lay Up Shoot*. *Jurnal Pendidikan Edutama, Vol 5, No 1*.
- [9] Sanjaya, W. (2010). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana.
- [10] Sitepu, I. D. (2018). Manfaat Permainan Bola Basket untuk Anak Usia Dini . *Jurnal Prestasi Vol. 2 No. 3*.



- [11] Sumarsono, A. (2018). The four-net game to improve students' psychomotor skill. *Advances in Social Science, Education and Humanities Research, volume 226 1st International Conference on Social Sciences (ICSS 2018)* (hal. 1367). Bali : Atlantis Press.
- [12] Sumarsono, A., & Sianturi, M. (2018). Implementation Interactive Media and Characterized Meme Media: A Comparison Study. *Journal of Education and Vocational Research (ISSN 2221-2590) Vol. 9, No. 1*.
- [13] Suyadi, Pamuttu, D.L., Hairulla, Betaubun, P. (2018). Ant nest (Musamus) as an additional material of engineered soil stabilisation using soil cement. *International Journal of Civil Engineering and Technology*, 9(12), pp. 918–925.
- [14] Untari, Mekiuw, Y., Betaubun, P. (2018). Identification of channels and behavior of cassava marketing institution in Merauke district. *International Journal of Civil Engineering and Technology*, 9(12), pp. 261–266.
- [15] Betaubun, M., Madya, S., & Margana. (2018). Description Of English Language Learning In The Border Of Merauke - Papua New Guinea. *International Journal of Mechanical Engineering and Technology (IJMET)*, 9(11), 990–994.
- [16] Chyntia Novita Kalalo, (2018). Online Self-Presentation Relationship with Instagram Addiction in Students of the Department of Physical Education, Health and Recreation, University of Musamus, Merauke, Indonesia, *International Journal of Mechanical Engineering and Technology*, 9(10), pp. 288–294.
- [17] Funnisia Lamalewa, Elisabeth Lia Riani Kore and Chyntia Novita Kalalo, The Influence of Practices of Human Resources Management, Compensation, Work Satisfaction and Motivation on Performance of Bank Employees in Merauke City, *International Journal of Mechanical Engineering and Technology*, 9(10), 2018, pp. 64–71.