



EFFORTS TO IMPROVE THE LEARNING OUTCOMES OF FRONT BOLING FLOOR GYMNASTICS THROUGH A PROBLEM-BASED LEARNING MODEL

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Abstract

The purpose of this study is to find out whether there is an increase in students' skills in performing the front roll movement model after the application of Problem Based Learning to improve student learning outcomes in learning front roll floor gymnastics at the elementary school (SD) level. To find out that Problem Based Learning has a better impact than conventional lecture-based learning. The method in this study is quasi-experimental with a pretest-posttest control group design model. Based on the results of data analysis, it was shown that the learning results of the gymnastics floor in front of the experimental class with the Problem Based Learning learning model obtained an average score of 79.5 with the highest score of 94 and the lowest score of 63, while the control class with the conventional model had an average score of 66.6 with the highest score of 81 and the lowest score of 50. Therefore, it can be concluded that the use of the Problem Based Learning learning model significantly increased the learning outcomes of front floor gymnastics compared to the conventional learning model in grade V students of Citeureup Mandiri State Elementary School 1.

Keywords: Learning Outcomes, Problem Based Learning, Front Bolster Floor Gymnastics.

INTRODUCTION

Floor gymnastics is a gymnastics that is carried out on a mat, the elements of movement consist of rolling, jumping, jumping, spinning in the air, concentrating with hands or feet to maintain a balanced attitude when jumping forward or backward. Floor gymnastics is one part of the gymnastics family, floor gymnastics refers to movements that are performed with an integrated combination of each part of the body and the ability of motor or movement components such as strength, speed, balance, flexibility, agility and precision.

According to Firdaus, F. (2023, December). Gymnastics is a sport that focuses more on movements that are followed systematically. Floor gymnastics is also called artistic gymnastics which forms a gymnastics group of action activities starting with modifications with the base of the mat as the base. Ramdanet, C., Zulbahri, Z., Handayani, S. G., & Igoresky, A. (2024). It concluded that floor gymnastics activities use more movements of all parts of the body both for gymnastics activities themselves and for other

branches of activity. That is why this gymnastics activity is said to be a basic activity

Gymnastics with the term floor, is a movement or form of exercise that is carried out on the floor based on a mat as a tool used. One example of floor gymnastics is the movement by doing the front bolster. According to Budi, D. R. (2021) Floor gymnastics contains pure knowledge about the process of practicing gymnastics in addition to acting as a basic science in training and practicing and also contributes to supporting the capacity of graduates when they become teachers later. Floor gymnastics is more dominant in learning movement skills so that some teachers do not attach importance to learning floor gymnastics from a cognitive perspective, this has an impact on students not gaining knowledge. Floor gymnastics refers to movements that are performed with an integrated combination and incarnate of each part of the body from the ability of the motor/movement components

According to (A Setira – 2024)Floor gymnastics refers to movements that are performed with an integrated combination and incarnate of each part of the body from the ability of motor components or movements such as strength, speed, balance, flexibility and precision. Based on the results of observations that have been made on students, it can be seen that when doing the front roll, the technique used by the students is not right, so that students have difficulty in doing the front roll. In this situation, smart day teachers provide learning methods that can make students better at rolling ahead with the right technique.

Front roll is a forward rolling movement with a sequence that begins with a squat posture of the legs together, place the palms forward, straighten the legs until the pelvis is lifted and then lean forward with the head between the hands, bend the hands and place the back on the floor, the body rounds and end with a squat posture with both hands straight up. The essence of the front roll movement lies in the repulsion of the legs and the posture of the body.

According to Hadjarati, H., & Haryanto, A. I. (2020) Gymnastics can be interpreted as a form of physical exercise that is systematically arranged by involving selected and planned movements to achieve certain goals between each other including the ability of psychomotor aspects or movements, such as strength, speed, balance, flexibility, agility and precision. Among the many floor gymnastics movements, one of them is the front bolster. The front rolling movement is one of the basic movements in floor gymnastics. According to Safe, S., Lengo, M. D., & Selan, Y.Y. (2024) Front rolling is a forward rolling movement that begins with a squat posture of the legs together, place the palms forward, straighten the legs until the call is raised and then lean forward the head into

between the hands, bend the hands and place the back on the floor, the body rotates, end with a squat posture with both hands straight on the floor, the essence of the front rolling movement lies in the push of the legs and the forward attitude of the body.

Seeing these conditions, to overcome the problem of floor gymnastics in classroom students, it is necessary to be given a different learning model, which is not centered on teachers/tutors. One of the appropriate learning models to improve student learning outcomes in floor gymnastics front bolster material is the Problem Based Learning learning model.

According to Yani, A. (2021) Problem Based Learning is a positive response from teachers to students who have done a good deed or have achieved in teaching and learning interactions. In the learning process, awards and praise are good deeds from students and are highly expected or necessary so that students continue to try to do good.

According to Darwati, I. M., & Purana, I. M. (2021) Problem Based Learning is one of the learning models that uses contextual problems in the real world as a context for students to learn. This learning model provides a challenge for students to work together in a group to solve problems. In addition, the existence of the problems given can help students' sense of desire to know to solve a problem with their creativity and critical thinking skills.

According to Maesaroh, S. (2022) The application of the Problem Based Learning model in learning, in the teaching and learning process there is interaction between various components, namely teachers, students, goals, tools, methods and others. Each component influences each other in achieving learning objectives. Students are the most important component in teaching and learning activities, because the important goal of learning is the student who learns. Therefore, understanding students is important for teachers to be able to create the right situation and have an optimal influence for students to be able to learn and get maximum results.

According to Amara, I. (2022) Problem Based Learning is a set of teaching models that use problems and material as a focus to develop problem-solving skills, materials, self-regulation. Anugraheni, I. (2018) Also argues that the Problem Based Learning model or in the problem-based learning model is a learning model that involves students in learning activities and prioritizes real problems, whether in the school, home or community environment as a basis for acquiring knowledge and concepts through critical thinking and problem-solving skills.

Problem Based Learning uses special daily problems as an educational topic to train students in problem solving and in gaining knowledge or key concepts from the

concept of material module content. According to Datreni, N. L. (2022) Basically, the Problem Based Learning learning model is a learning model that begins with a problem as a stimulus in solving problems. This learning model places students as learning subjects, so that learning is more student-centered. According to Hotimah, H. (2020) The use of the Problem Based Learning model can improve students' critical thinking skills. One of the strategies for implementing the learning model that is in accordance with the characteristics of the above problems is the application of the Problem Based Learning Model.

According to Darwati, I. M., & Purana, I. M. (2021) The Problem Based Learning learning model is a method that focuses on problem-solving activities in learning activities. Problem Based Learning is one of the learning models that involves students to solve problems through stages of scientific methods so that students can learn new knowledge related to the problem and at the same time have the skills to solve problems.

METHODS

The research method used in this study is the experimental method. The experimental method is a scientific study in which the researcher manipulates and controls one or more of these independent variables. Experimental research aims to examine possible cause and effect by applying one or more treatment conditions to one or more experimental groups and comparing the results with one or more control groups that were not given the treatment (Abraham, I., & Supriyati, Y. 2022) The research design used in this study is quasi-experimental with a pretest-posttest control group design model. Where the pretest is a test before being given treatment and the posttest is a test after being given treatment.

Population is the whole of individuals or objects to be studied, the information obtained in research is basically sourced from the research population. In simple terms, a study can use a part of the population to be used as a sample (Ramdhan, M. 2021). Therefore, the population used in this study is 71 students in grades V C and V D at Citereup Mandiri 1 State Elementary School.

Sampling technique is a technique for determining samples randomly. Simple random sampling is the simplest technique. The sample is taken at random, regardless of the level of the population, each element of the population has an equal and known chance of being selected as a subject. Therefore, the sampling technique in this study uses simple random sampling (Septiani, Y., Aribbe, E., & Diansyah, R. 2020).

A sample is a part of the population to be studied or as the sum of the

characteristics possessed by the population. Sample is a useful part for the purpose of population research and its aspects Sample is part of the number and characteristics chosen by the population[59]Based on the above opinion, the sample used is class V C with a total of 20 students who are used as a control class and class V D with a total of 20 students who are used as an experimental class.

Research instruments are often known as measuring instruments. A research instrument is a tool used to measure natural and social phenomena observed because in principle research is a tool used by researchers in collecting data, so that it can be easy to collect data according to expectations (Reza, M., Khotimah, N., Pratiwi, A. P., & Widayanti, M. D. 2022). Research instruments are an important component of scientific research because they close the possibility that instruments from a research can be reused by other research that has the same relevance and needs (Rahman, A., Arsyad, N., Rusli, R., Ahmar, A. S., & Musa, H. 2023).

The data collection technique in this study was to test the movement ability of the front bolster floor gymnastics. This test is to measure the learning outcomes of front boling floor gymnastics, namely by conducting practices that are compiled based on ability indicators learning outcomes on the front bolster floor gymnastics material with the help of the Problem Based Learning learning model. The pre-test and post-test materials remain the same. The source of data on the research location is at SDN Citeureup Mandiri 1. This research took place from April to May in the even semester of the 2024/2025 academic year.

RESULTS AND DISCUSSION

RESULTS

The data obtained in this study are in the form of value results on gymnastics materials

This front bolster floor includes prefix, roll, advanced motion and suffix

Table 1 Preliminary test results of the control class and the experimental class

No	Classes	Number of Students	Average
1	Control	20	64,2
2	Eksperimen	20	65,1
Total		40	129,3

From the results of statistical calculations, it was obtained that the average

score of the initial test (pre-test) of the control class and the experimental class was 64.2 (sixty-four point two) and 65.1 (sixty-five point one). From the data, it can be seen that the average values of the control class and the experimental class did not differ too much. The difference from the average of the two classes is 0.9.

The data of the students' initial test results, both the control group and the experimental group, will be presented in the form of a frequency distribution table that ranges from five numbers and starts from the lowest score to the highest score obtained by the control group students.

In summary, the results of the post-test of the control group and experiments are presented in the following table 2.

Table 2 post-test results of the control class and the experimental class

Yes	Classes	Number of Students	Average
1	VD(control class)	20	66,6
2	VC (experimental class)	20	79,5
Total		40	145,5

From the table above, it is known that the average values of the control class and the experimental class are 66.6 (sixty-six point six) and 79.5 (seventy-nine point five). Based on the table above, the difference in average values achieved by the experimental group and the control group can be seen. The test results in the control group also increased, namely from the initial test of 64.2 to 66.6 only increased by 2.4. Meanwhile, in the experimental group, there was an increase of 14.4, namely from the initial test of 65.1 to an increase to 79.5. The increase in test results in the control group was not as large as in the experimental group.

Based on the testing of data analysis requirements, it can be found that the pre-test and post-test scores of the experimental class and the control class are normally distributed and the data is homogeneous. Therefore, the data was analyzed using parametric statistical tests, t-test independent samples using SPSS 25.0 Software for Windows. As for the decision-making criteria, if the significance is ≥ 0.05 , H_0 is accepted, while if the significance is < 0.05 , H_0 is rejected.

Table 3 independent sample t test results

Tests of Normality					
	Classes	Shapiro-Wilk			Conclusion
		Statistic	df	Say.	
Results of Improving Rhythmic Gymnastics Learning	Pre-Test Classroom Eksperimen	.933	29	.112	Distributed data normal
	Post-Test Class Eksperimen	.944	20	.177	Distributed data normal
	Pre-Test Classroom Control	.905	20	.067	Distributed data normal
	Post-Test Class Control	.911	11	.212	Distributed data normal

Based on the results of the normality test using Shapiro-Wilk from the table above, it can be seen that the normality test results of the control class pre-test is 0.905 and the experimental class pre-test is 0.933. The result of the post-test normality test for the control class was 0.911 and the result of the post-test normality test for the experimental class was 0.944. Based on the criteria on the normality test, it shows that the pre-test and post-test values of the control class and class experiment 0.05. Based on these results, it shows that the learning value of the front bolster floor gymnastics carried out by students is normally distributed.

DISCUSSION

Based on the results of data analysis, it was shown that the learning results of the

front bolster floor gymnastics of the experimental class with the conventional model assisted by the Problem Based Learning model obtained an average score of 79.55 with the highest score of 94 and the lowest score of 63, while the control class using the conventional method had an average score of 66.6 with the highest score of 81 and the lowest score of 50.

Judging from the average score of the pre-test and post-test scores for the learning outcomes of the front boling floor gymnastics in the two classes above, it can be seen that the increase in the average score of learning outcomes in the experimental class was greater than that which occurred with the control class. Based on the results of the second hypothesis test, the results of the post-test of the experimental class and the control class obtained a t count of 3.994 and a significance value of 0.000. The significance value is less than 0.05, so it can be said that there is a significant difference between the results of the post-test of the experimental class and the control class.

CONCLUSION

With the results of the study, it can be concluded that at the pre-test stage, the average score of the control and experimental classes did not show a striking difference, namely an average of 64.2 for the control class and an average of 65.1 for the experimental class. This shows that the initial abilities of the two groups are relatively balanced. After being given treatment. Namely the application of the Problem Based Learning learning model in experimental classes, there was a significant increase in learning outcomes. The average post-test score of the experimental class increased to 79.5, which is an increase of 14.4 from the pre-test. Meanwhile, the control class that only used the conventional model also increased, but was much smaller, from 64.2 to 66.6, only an increase of 2.4. This shows that the use of the Problem Based Learning learning model significantly improves the learning outcomes of front rolling floor gymnastics compared to the conventional learning model in grade V students of Citeureup Mandiri 1 State Elementary School.

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