



The Influence of Baseball Game, Strengthening and Training Motivation on the Motoric Ability of Class V Elementary School 112 Rejang Lebong

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Abstract

This research is a quantitative research with an experimental method using a 2x2 factorial design. The aim of this study was to reveal the effect of playing baseball and bashing accompanied by motivation to practice on improving motor skills. The population in this study were all students of Rejang Lebong 112 Public Elementary School, totaling 290 students. The sample in this study were 32 male students in class V. The statistical analysis used in this study was the two-way ANOVA test to test the hypothesis that baseball games and strength accompanied by motivation to practice have an influence on motor skills. The results showed that 1) There were differences in the motor skills of Rejang Lebong 112 Elementary School students who used the baseball training method and the fortification training method. 2) There is an interaction between training methods and training motivation on motor skills. 3) In the group with high training motivation, the baseball training method was more effective than the strength training method on motor skills. 4) In the low training motivation group, the baseball training method was also more effective than the strength training method on motor skills. The baseball training method is more effective than the fortification training method for motor skills.



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INTRODUCTION

Play is a very good activity for children to get involved in because it has a good impact and is fun and refreshing. It can be done with or without tools, without coercion, and without expecting any rewards or rewards. The urge to play is real. The world of play activities is divided into two, there are traditional games and there are also modern games. Traditional games are playing activities that have been played from ancestral times for generations, game equipment is made of bamboo, wooden poles, boards or other objects. This means that traditional games do not require a lot of spending. Modern games are found after the 20th century, game equipment is metal, wire, iron, or others. Currently, children's games continue to advance and improve along with the times, so that many of them spend their free time using all-tech media equipment, such as cellphones, laptops, computers or others. Indonesia is rich in games, before the rapid development of technology as it is today, games were part of childhood, they played with the aim of having fun.

In this day and age it can be seen that technology has advanced and developed well, therefore all activities can be carried out very easily and quickly, however, with the rapid development of technology, it also has other impacts, especially in playing activities. We know that before developments in technology, sports or play became a very important part of filling activities or free time for students in carrying out play activities to obtain pleasure. With that, playing activities are now starting to be neglected because children are spoiled with games that prioritize and prioritize technology. So that making them not used to doing motion with this can hinder the development and growth of children. There are many benefits that can be taken

while playing, especially for children's development, not only physically, but also have an impact on the development of other intelligences both emotionally, personality and socially (Hadi et al., 2021). Limited sports activities inside and outside of school will make students minimal in making movements so that students feel bored, bored, tired and tired because they spend a long time sitting compared to moving. Physical education is very important in improving the motor skills of students who are still experiencing developments such as running, jumping, throwing, catching, kicking and even balance. 2021). Limited sports activities inside and outside of school will make students minimal in making movements so that students feel bored, bored, tired and tired because they spend a long time sitting compared to moving. Physical education is very important in improving the motor skills of students who are still experiencing developments such as running, jumping, throwing, catching, kicking and even balance. 2021). Limited sports activities inside and outside of school will make students minimal in making movements so that students feel bored, bored, tired and tired because they spend a long time sitting compared to moving. Physical education is very important in improving the motor skills of students who are still experiencing developments such as running, jumping, throwing, catching, kicking and even balance.

Every teacher or parent wants their students or children to develop into smart, innovative, independent and fit people. Therefore to prove this situation, it is very important to understand the scope of play. Because the world of students is not the same as adults. The movement environment is playing, improving the motor skills of students or children is usually neglected by teachers or parents, because they do not know it is important

that training to improve their motor skills cannot be separated from education. Judging from the activities of the students while at school and in the home environment, it can be seen that there is still a lot of lack of movement activities. It can be seen that when they arrive at school, the children in their free time instead use it to sit around relaxing, snacking on food, drinks without sufficient movement activities such as: running, jumping and doing simple games. Even though movement activities greatly affect the motor skills of children. The importance of motor skills is seen from the increasing number of students who carry out certain physical activities, therefore their motor skills are trained. Because with the experience of motor skills in children so that they can increase their maturity. Someone who is trained in motor skills is thought to be more successful and mature in carrying out their activities compared to someone who is less trained or low in motor skills. It is known that the motor skills of each person are different and also depend on how much or how little the movement experience is. The benefit of motor skills is to improve the skills of each person so that they can be useful in increasing their activities. All elements of the motor skills of elementary school students can be developed through the application of physical education activities and other games that involve large muscles in their activities.

Students' motor skills can develop and grow fully if students have experience in performing various movements. students can also produce a variety of movement experiences if the needs of each nutrient are met, because a balanced and good nutritional intake will appear active, fast and enthusiastic when carrying out various activities so this will affect the development of motor skills. The balance of nutritional intake that cannot be

fulfilled for a long time will make a person have a poor nutritional status. Motoric abilities are also influenced by nutritional status, mechanical and physical factors (Gusril, 2020).

There are many games that can improve motor skills, one of the medicines is baseball and ball games. One of the classic sports that children like the most is baseball. The baseball game is also a game that has many benefits in a process and has good values (Tri, 2017). The fortification game was chosen because in addition to fostering children's cooperative abilities, it also contains cultural values and local wisdom that must be maintained. Fortress games require elements of speed in running and good strategy (Efendi & Ekayati, 2017). Sports activities offered by physical education teachers at school will greatly help the growth and development of children as a whole, giving a good effect on physical, psychological, and social well-being. and their social life (Syaifulloh & Agus, 2021). A focus on development orientation and fostering the younger generation through sports education is a fundamental strategy that can be used to realize and improve Indonesia's human resources, especially in the field of sports (Umar, 2019).

Based on the explanation that has been described above, the researcher is interested in conducting research entitled "The Influence of Baseball Games, Fortress and Training Motivation on the Motoric Ability of Class V Elementary School 112 Rejang Lebong". Because if you look at the form of this research, it is still rare to carry out research on elementary schools in Rejang Lebong Regency with the aim of seeing whether or not there is a level of influence and difference from baseball games and fortifications on motor skills.

METHOD

This research is a type of quantitative research with experimental methods and using a 2x2 factorial design. The population in this study were all students of Rejang Lebong 112 Public Elementary School with a total of 290 students. The sample used in this study was 32 students in class V. The instrument of this research was a training motivation questionnaire and a motor ability test consisting of a wall pass test, standing broad jump test, medicine ball test, 40 meter running test and back and forth running test. -back 4x5 meters. Wall pass test to measure coordination between eyes and hands, standing broad jump test to measure power in a person's leg muscles, medicine ball test to measure power in arm muscles. The 40 meter run test is useful for measuring running speed,

The technique of collecting research data is by giving a questionnaire and the results are divided into 4 groups from the highest to the lowest results using the matching method, then doing a pretest and giving exercises and then closing it with a posttest. The data analysis technique from the research results used a two-way analysis of variance (anava) then followed by the tukey test (Hermawan, Bambang, 2020). According to the 2x2 factorial design of this investigation, a two-way anava technique was used for data analysis, with a significance threshold = 0.05. The ANOVA requirements test which includes the normality test and homogeneity test is first carried out before the data is processed using the ANOVA variance technique. The purpose of the data normality test is to determine whether the test taker's data is normally distributed or close to it.

If $X_{count} < X_{table}$, it means that the data is declared to be normally distributed and otherwise, the data is not normally distributed (EP Putra et al., 2019). The

next step is to carry out a homogeneity test to find out whether the groups that make up the sample come from a homogeneous population if it is known that the data is normally distributed. The F test is the formula used for the homogeneity test.

The next step is to test the 2x2 anova using the formula and calculate the total squared sum (JKt), between A (JkA), between B (JkB), interactions A x B (JkAB), and within groups (Jkd), using the following formula. If the normality test and homogeneity test have been carried out.

RESULTS

Data on test results and measurements of motor skills through the wall pass test, standing broad jump test, medicine ball test, 40 meter running test, 4x5 meter back and forth test are presented in the table and histogram below as follows:

1. Data on the results of measuring motor skills through the wall pass test consisting of 32 students, obtained a minimum score = 7, a maximum score = 18, an average = 13.94 with a standard deviation = 2.77. Then the results of the wall pass test show that students who have a very good category are 16%, students who have a good category are 63%, students who have a moderate category are 13%, students who have a less category are 8%, students who have a poor category once 0%.
2. Data on the results of measuring motor skills through standing broad jump test consisting of 32 students, obtained a minimum value = 1.78, a maximum value = 2.45, an average = 2.15 with a standard deviation = 0.19. Then the standing broad jump test shows that students who have a very good category are 31%, students who have a good category

are 28%, students who have a moderate category are 16%, students who have a poor category are 25%, students who have a very poor category are 0% .

3. Data on the results of measuring motor skills through the medicine ball test consisting of 32 students, obtained a minimum value = 2.52, a maximum value = 6.40, an average = 4.83 with a standard deviation = 0.97. Then the results of the medicine ball test showed that students who had a very good category were 16%, students who had a good category were 19%, students who had a moderate category were 31%, students who had a poor category were 25%, students who had a poor category once 9%.
4. Data on the results of measuring motor skills through a 40-meter running test consisting of 32 students, obtained a minimum value = 6.22, a maximum value = 9.59, an average = 7.75 with a standard deviation = 0.91. Then the results of the 40-meter run test showed that students who had a very good category were 3%, students who had a good category were 16%, students who had a moderate category were 28%, students who had a poor category were 34%, students who had a moderate category were less than 19%.
5. Data on the results of measuring motor skills through a 4x5 meter back-and-forth running test consisting of 32 students, obtained a minimum value = 6.39, a maximum value = 12.97, an average = 10.04 with a standard deviation = 1.86. Then the results of the 4x5 meter back and forth test showed that students who had a very good category 0%, students who had a good category 63%, students who had a moderate category 37%, students who had a

less category 0%, students which has less than 0% category.

Testing Requirements Analysis of Variance

1. Normality test

The normality test is run on each piece of data from the variables before the proposed hypothesis is tested. Using the Liliefors test with a significant test level of $\alpha = 0.05$, the normality of the variable data was evaluated. For more details can be seen in the table below as follows:

Table 1. Normality Test

Group	N	Lo	Lt	Conclusion
A1	16	0.158	0.213	Normal
A2	16	0.170	0.213	Normal
B1	16	0.096	0.213	Normal
B2	16	0.198	0.213	Normal
A1B1	8	0.126	0.285	Normal
A1B2	8	0.217	0.285	Normal
A2B1	8	0.179	0.285	Normal
A2B2	8	0.248	0.285	Normal

The results of the normality test for the research design group data which were treated with baseball games and strength and training motivation are shown in the table above. Lo is obtained at a significant test level of 0.05 which is smaller than L_{table} . So, it can be said that the data comes from a normally distributed population.

2. Variance Homogeneity Test

Homogeneity test is carried out after the normal data in the data group is checked. The F-ratio between the largest and smallest variances of the groups tested was calculated by dividing the largest variance by the smallest variance to assess the homogeneity of the variances of the two treatment groups. At the 0.05 significance level, the computational results are contrasted with

the F-table pricing. For more details can be seen in the table below as follows:

Table 2. Variance Homogeneity Test

Group	N	Variance	Fcount	Ftable
A1	16	0.097	1.44	2.40
A2	16	0.067		
B1	16	0.092	1.32	2.40
B2	16	0.069		

Based on the results of statistical calculations, it was obtained that the largest variance homogeneity index was 0.097 and the smallest variance was 0.067 between the two groups A1 and A2 tested, obtained Fcount 1.44 and Ftable 2.40 at $\alpha = 0.05$. Thus $F_{count} < F_{table}$ means that the two groups homogeneous. Then the results of statistical calculations obtained the largest variance homogeneity index of 0.092 and the smallest variance of 0.069 between the two groups B1 and B2 tested, obtained Fcount 1.32 and Ftable 2.40 at $\alpha = 0.05$. Thus $F_{count} < F_{table}$ means that the two groups are homogeneous.

3. Hypothesis testing

Two-way ANOVA analysis was used to test the research hypothesis. A two-way ANOVA technique was used to ascertain factor contributions to experimental findings and interaction effects. The main influences in this study are:

Table 3. 2x2 Anava test

Variant Source	JK	df	RJK	Fcount	Ftable
Between Training Methods (A)	0.129	1	0.129	4.62	4,20
Between Methods of Motivation (B)	0.230	1	0.230	5,10	4,20
Interaction (AxB)	0.098	1	0.098	4.47	4,20

In Group	5,836	28	0.208
Total Deduction	6,292		

Based on the summary of the two-way anava calculation results in the table above, it can be stated that: 1) The alternative hypothesis (H_a) states that there is a difference in the effect of training between the baseball training method group and the strength training method is accepted, because the calculation results show that $F_{count} = 4.62 > F_{table} = 4.20$. 2) The alternative hypothesis (H_a) states that the group with high training motivation and low training motivation is accepted, because the calculation results show that $F_{count} = 5.10 > F_{table} = 4.20$. 3) The alternative hypothesis (H_a) states that there is an interaction between training methods and motivation on motor skills is accepted, because the calculation results show that $F_{count} = 4.47 > F_{table} = 4.20$.

DISCUSSION

All hypotheses were accepted after two-way anava data analysis. Because, apart from seeing the training techniques we offer, it is also important to look at the level of motivation in students to develop motor skills. The results of the hypothesis research show that the motor skills of students as a whole increase. In other words, it can be said that the experimental hypothesis is significant. As previously mentioned, the game of baseball and bastion has an influence on motor skills, and this influence can be seen from the results of the data collection, where there is a trend after giving treatment to the game of baseball and bastion.

1. Differences in motor skills between the group that was given baseball training and the group that was given strength training

The findings of the first hypothesis test revealed that the increase in the motor skills of the baseball group was greater than that of the castle group. From these findings it can be argued that the baseball training method is more effectively used to improve motor skills. This can be seen from the results of the statistical analysis of baseball training, it was found that the average = 7.82 was greater than the bastion exercise = 7.66 with an average difference = 0.16. This shows that training using the baseball method has a better effect than the bastion training method. The effectiveness of the baseball training method is supported by the freedom given to students to express and pour all their thoughts into the game.

According to the elements of the baseball game that utilizes large muscles in their activities with speed, agility, strength, and coordination to improve motor skills effectively (Dwipa, 2015). The capacity to move quickly is known as speed (Chania et al., 2021). Every human movement activity requires a combination of strength and speed, which is called power (Nopiyanto et al., 2019). The movement of throwing the ball in children can hit the target precisely, and has the movement to avoid throwing the ball from an opponent who has not been able to. These activities include running movements while playing so that children are better and stimulated compared to children who are still having difficulties and are not fast enough so that children can run in a directed manner.

This activity has many advantages, including not requiring a lot of money to play and can influence children's creativity and help them become more aware of their environment, encourage community involvement and children's emotional attitudes, improve children's motor skills and learning tools, are useful for maintaining physical fitness children and hone intellect, foster feelings of

happiness and joy, and can be used by anyone (Anggraini et al., 2018).

2. The interaction between training and motivation to practice on improving motor skills

The findings of testing the second hypothesis reveal that training techniques and motivation to practice influence and interact with motor skills. This shows that to increase to improve motor skills not only by using the training method, but also determined by the motivation possessed by students. Motivation is also an important element in improving students' motor skills. The results of training for motor skills are also influenced by the motivation to practice. Using the right training methodology is essential for the process to produce the best results. Meanwhile, modifications that are carried out consistently, planned training in accordance with training principles are referred to as adaptations (Bafirman, B., & Wahyuri, 2019). Thus training and motivation are very important to improve students' motor skills because there is an interaction between motivation and the training methods used for motor skills. Based on this discussion, there is an interaction between the motivation to practice with the training methods used on motor skills.

3. Differences in motor skills between the highly motivated group trained in baseball and the group trained in strength

The findings of the third hypothesis test revealed that there were differences in the practice skills of Rejang Lebong 112 Public Elementary School students in the high motivation group who were trained with baseball obtained an average of = 7.84 while those who were trained in fortification obtained an average of = 7.82 with an average difference -average = 0.02. In the baseball training method with a high level of motivation to practice, it is marked by

the enthusiasm of students in participating in the exercise, when students are given the task of doing a form of exercise to improve motor skills, students will work on it with enthusiasm.

This is because students who have high motivation to practice can maintain their enthusiasm and desire to participate in training more effectively, including the inner desire to achieve the best results. Less motivated learners on the other hand, find it difficult to assimilate an exercise while it is being performed. This happens because of boredom and even frustration that arises and thus prevents what is expected. As mentioned in theory, training motivation is an impulse that arises in a person to carry out a work activity or try really hard to achieve a predetermined goal (Toni, 2018). It is important to underline that a person must have high motivation to complete all tasks. a person will have a 50% chance of success if he has a strong will to win. someone will be guaranteed total success if they increase their enthusiasm (Rasyid & Kusnanik, 2021).

4. The difference in motor skills between the low training motivation group that was trained in baseball and the group that was trained in strength

The findings of the fourth hypothesis testing revealed that there were differences in the practice skills of Rejang Lebong 112 Public Elementary School students in the group motivation. The low ball trained with baseball obtained an average = 7.78 while those trained with fort obtained an average = 7.54 with an average difference = 0.24. The results of the next study showed that the overall score of the baseball training method was also higher than the form of fortification training at low levels of motivation to practice. From the results found, it can be said that the baseball training method is more

effective than the strength training method at low training motivation levels in an effort to improve motor skills. The test results also show that overall, the score of the group training method given baseball training is lower than the reinforcement training method at low levels of training motivation. This relates to a person's ability to accept an exercise that they do. In terms of the exercises one does, one must ensure that they are sufficient and motivate them to practice seriously to achieve the desired goals, motivation can be compared to the fuel that drives the engine (Daya Junresti, 2015).

CONCLUSION

Based on the results of data analysis and discussion of research results, it can be concluded as follows:

1. There are differences in the motor skills of Rejang Lebong 112 Elementary School students who use the baseball training method and the strength training method.
2. There is an interaction between training methods and motivation to practice motor skills.
3. In the high training motivation group, the baseball training method was more effective than the strength training method on motor skills.
4. In the low training motivation group, the baseball training method was also more effective than the strength training method for motor skills.

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