



Improving creativity and learning motivation in basketball through a tactical approach

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ABSTRACT

Students assumed that learning basketball is less fun and students did not seem interested in following it. The purpose of this study was to determine the effect of a tactical approach in basketball learning on creativity and motivation. The method used in this study was the "pre-experimental design" method in the form of "intact-group comparison". The sample in this study was the eleventh graders of State Junior High School 4 Lubuklinggau with a total sample of 60 students. The instruments used in this study were creativity and motivation questionnaires using a Likert scale calculation. The result of research creativity showed that the p-value was lower than the significance level ($0.049 < 0.05$). It means that the experimental group has a significant influence. Then, the result of learning motivation showed that the p-value was higher than the significance level ($0.568 > 0.05$). It means that there was a significant improvement in the experimental group after receiving the treatment of the tactical approach model in basketball learning. Therefore, it can be concluded that there is a significant effect of the tactical approach in basketball leaning on the creativity and learning motivation of the students at State Junior High School 4 Lubuklinggau.

Keywords: basketball, creativity, learning motivation, tactical approach

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INTRODUCTION

In general, students in Indonesia are physically not good enough. In line with this idea, Kusnanik & Hartati (2017) states that Junior High School students in West Java Indonesia are needed to be improved their physiological performance. Basketball learning in schools aims to teach students about the basic concepts of technique and tactics in a basketball game. The selection and the use of the right learning approach are necessary for supporting the success of a teacher in teaching. The use of the right learning approach can make students easier to understand and master the learning material, and the most important thing is students feel happy in participating in the teaching and learning process. Teachers must be able to plan, define and implement an effective learning approach to create the expected learning outcomes based on the demands and characteristics of students. Based on the implementation of physical education and health learning for the seventh graders at Junior high school Number 4 Lubuklinggau, it can be seen that the students were less interested in participating in the basketball lessons at school. From the observations, it was found that 80% and 20% of students were less motivated in basketball learning, it indicated that there was a need for improvement in basketball learning. The previous related study showed that basketball physical test applications can be used to evaluate the physical test of athletes and students (Hartati, Victorian, Aryanti, Destriana, & Destriani, 2018). This situation obviously reduced students' motivation and creativity in learning. Students assumed that learning basketball was less fun and students did not seem interested in following it. There were also students who were shy to do the basketball movements because they were afraid to make the

wrong moves, they were also afraid to get criticism from friends and were afraid to be ridiculed by their friends. It happened because of the lack of socialization and the wrong use of the learning model which makes basketball learning became more unpleasant. Students assumed that the basketball game was a difficult game to learn because there were many techniques and rules used. So, students felt more bored during basketball lessons. The conventional approach in physical education and health was thought to be able to improve more basic technical skills, but it turned out that the conventional approach was still being criticized by Griffin (Fernando & Kamarudin, 2018) that the skills taught before teaching subjects can understand their relationship to the actual playing situation, the result can take away the essence of the game itself. The conventional approach of teachers often spends their learning time only learning basic techniques, so that the impression of students on this approach is boring and less interesting because the learning situation becomes monotonous. Previous research on basketball is that there is an effect of plyometric medicine ball throw exercises on the results of free shots in basketball games for students (Sari, Hartati, & Aryanti, 2019), this tends to reduce students' creativity and motivation. For this reason, changes need to be made so that basketball learning becomes more fun for students, one of which is by applying a tactical learning model of basketball learning.

According to Kenedi (2017), creativity is the ability that a person has in finding and creating something new, in a new way, a new model, and can be useful for himself and for others. Creativity can also be interpreted as a personality that produces interactions with environmental conditions. The ability to provide new ideas and apply them in problem-solving which includes cognitive characteristics such as curiosity like to ask questions always wanting to seek new experiences can also be trained through activity tests given to students (Sambada, 2012). Thinking creatively implies that knowledge is the basic aspect and dimension of intelligence in the thinking process. The primary key to bringing up critical thinking is to restructure thinking as a result of analyzing and evaluating it effectively (Supena, Darmuki, & Hariyadi, 2021). In addition, creativity definitions and assessments have privileged thought processes over the ability to act (Fardilha & Allen, 2020) and the creativity of children will be able to grow whether the school can provide space for creativity. Child-friendly schools are school concepts that give protect students from violence, discrimination, and unnatural treatments (Lian, 2018).

Learning is an activity involving teachers and students. The success of the teaching and learning process is influenced by student learning motivation. The existence of student learning motivation will give spirit and learning to become more focused students (Emda, 2018), motivation is a basic impulse that moves a person to enter into a process and be able to maintain his behavior until the destination goal (Lidia susanti, n.d.), and student learning outcomes can be influenced by various factors, one of which is motivation (Palittin, Wolo, & Purwanti, 2019).

A tactical approach is a learning approach that combines techniques and tactics in the game. According to (Juanda, Budiman, & Ibrahim, 2020) the tactical approach is a game model that emphasizes the game-drill-game process so that students will be actively involved in the learning process of the handball game. Therefore, applying the game approach can increase students' creativity. According to (Sari, Haenilah, & Sofia, 2015) children's creativity can be developed through play activities. Through games, children can optimize all their abilities. The application of a tactical approach in learning will provide a pleasant atmosphere and can motivate students to take part in learning well. According to (Sultanengtyas & Darmawan 2018) the tactical approach is a learning approach that emphasizes students to be active and actively involved during the Physical Education learning process, the tactical approach will motivate students to look more active in the learning process. The application of a tactical approach can improve learning outcomes to play basketball for students in Sukoharjo for the 2019/2020 academic year (Adirahma, 2020). And the other research about basketball is to determine the effectiveness of video applications for increasing motivation and game performance in children playing basketball (Lin, 2022).

Based on the description above, creativity and motivation are important factors in achieving a learning goal. Therefore, an educator needs to anticipate or find solutions so that the two achievement factors are still owned by each student. One of them is by applying a tactical learning approach in basketball learning in physical education, sports, and health, this study aims to determine how much influence the tactical approach in basketball learning has on the creativity and learning motivation of the students of Junior high school Number 4 Lubuklinggau. The implementation of this research was expected to provide the following benefits. The implementation of this research would be able to motivate students to increase creativity and motivation in learning. The implementation of this research should be able to inspire teachers in

determining the right learning approach. Then, the implementation of this research can be used as input by the school in improving the quality of its teaching staff. The hypotheses in this study were there was an effect of the tactical approach on the learning creativity of State Junior High School 4 Lubuklinggau students and there was an effect of the tactical approach on the students' learning motivation of State Junior High School 4 Lubuklinggau.

METHOD

This study used a quasi-experimental research method and used a "pretest-posttest control group design". This design involved two randomly selected groups, one group was given treatment (experimental group) and the other was not given treatment (control group). The populations in this research were 266 students of the seventh graders at State Junior High School 4 Lubuklinggau. Determination of the sample size in this study is based on the Nomogram Harry King, (Sugiyono, 2019). The calculation of the sample in this study uses an error rate of 10%, so point 19 is obtained with a 95% confidence level, then the multiplier factor = 1.195. So, $0.19 \times 266 \times 1.195 = 60.4$ '60. So, the sample in this study was 60 students. Furthermore, the sample was divided into 2 groups, namely the experimental group and the control group using the ordinal pairing technique.

The instruments used in this research were a creativity questionnaire and a student learning motivation questionnaire. The questionnaire used had been tested for validity and reliability, this was done to determine the level of suitability and clarity of the instrument. In this study, the writer used a Likert scale. This scale used positive or negative questions. The data were analyzed using a normality test. The data of normality test was carried out with the aim of obtaining information about the normality of the data obtained. In addition, the normality test also determined the next step to take - whether parametric or non-parametric statistics should be used. The normality test of the output produced by the SPSS 24 program contained five tests of data normality analysis, namely Kolmogorov Smirnov, Shapiro-Wilk, QQ Plots, Detrended Normal QQ Plots, and Spread V.S Level Plots. For the normality test, the writer used the analysis of Kolmogorov Smirnov to test the homogeneity level. The homogeneity test was carried out after the normality test. The purpose of the homogeneity test was to find out whether or not the data came from a homogeneous sample. In addition, to determine what type of statistical analysis is then used in testing the data hypothesis. The steps taken to test the homogeneity of the data using the SPSS Series 24 software program were the same as the data normality test. The output generated from the descriptive exploration of the data simultaneously produced two analyzes, namely normality, homogeneity of data, and hypothesis testing, The data hypothesis test was carried out in order to obtain conclusions from the data obtained. In testing this hypothesis, the writer took the final test in the experimental group and the control group. In this study, the t-test was used in the SPSS statistical analysis. The resulting output was 38 consisting of data decryption, homogeneity of variance test, and t-test. This test was used to see whether there was an effect on the tactical approach to students' creativity and motivation and whether there was a significant difference between the experimental group and the control group. The results were compared with the probability (sig). The treatment in this research was the game was modified representatively to make it easier in the form and conditions of the game, such as changes in in-game rules, teaching the game in general, and then proceeding with division, this research was conducted once in a week according to learning activities for 3 x 40 minutes and was carried out for 4 weeks, from 3 May – 31 May 2019.

The determination of the sample size in this study was based on the Harry King Nomogram, in Sugiyono (2015). The sample calculation in this study used an error rate of 10%, so point 19 was obtained with a 95% confidence level, then the digging factor = 1.195. So, $0.19 \times 266 \times 1.195 = 60.4$. So, the sample in this study was 60 students. Furthermore, the sample was divided into 2 groups, namely the experimental group and the control group using the ordinal pairing technique. Ordinal pairing is the separation of samples based on research subjects and two groups are obtained with the same or balanced results.

Table 1. List of Population Grade VII Students of Junior High School Number 4 Lubuklinggau

Class	Male	Female	Total
A	14	17	31
B	14	15	29
C	14	15	29
D	15	15	30
E	15	14	29
F	16	14	30
G	14	16	30
H	14	15	29
I	13	16	29

The validity of the questionnaire was carried out to ensure that the questionnaires were made in accordance with the research objectives. The test was carried out using SPSS 24. The questionnaire was declared valid if $r_{count} > r_{table}$. The reliability of the questionnaire was calculated using SPSS 24, the minimum reliability of the questionnaire was 0.70. To determine the reliability coefficient of this questionnaire, the writer used Cronbach's alpha through the SPSS 24 program. Indicators of creativity are broad curiosity, often asking questions, giving many ideas about a problem, are free to express opinions, having a deep sense of beauty, stand out in one field of art, are able to see a problem from various points of view, have a sense of broad humor, has imagination, original in the expression of ideas and in problem-solving (Kusmijati, 2014).

FINDINGS AND DISCUSSION

Finding

Based on research on tactical approaches in basketball learning on creativity and student learning motivation in the experimental group and control group. A learning model with a tactical approach was chosen to determine the effect on the ability to play basketball and the formation of character in students. In the experimental group and control group for pretest and posttest, there was an increase of 11.6% in creativity and 16.5% in the motivation of the experimental group while in the control group it was 4,3% in creativity and 1.39% in motivation. The data of normality values for creativity and motivation in the experimental and control groups are shown in table 1.

Table 2. Normality of pretest and posttest of creativity (C) and motivation (M) scores in the experimental and control group

Group	Test	Kolmogorov-Smirnov ^a (C)			Kolmogorov-Smirnov ^a (M)		
		Statistic	df	Sig	Statistic	Df	Sig
Experimental	Pretest	.142	30	.127	.089	30	.200
	Posttest	.149	30	.086	.140	30	.139
Control	Pretest	.148	30	.92	.086	30	.200*
	Posttest	.138	30	.149	.132	30	.194

From Table 2, the significance (2-tailed) of the pretest and posttest in the experimental group were 0.127 and 0.086. Meanwhile, the significance (2-tailed) of the pretest and posttest in the control group were 0.200 and 0.139. Since all of the significance values were more than 0.05, it can be concluded that the data were normally distributed. In the normality value of the data, the posttest value is greater than the pretest value. This also applied to the normality values obtained for the elements of motivation (M) and creativity (C). In the experimental group, the post-test value was greater, namely 0.49 when compared to the control group, which was 0.138.

The data were homogeneous if the significance was >0.05 . The result of the homogeneity test showed that the significance of the pretest and posttest in creativity were (0.532 $>$ 0.05) and (0.643 $>$ 0.05). The significance of the pretest and post-test in motivation was (0.930 $>$ 0.05) and

(0.388>0.05). Since the data were higher than 0.05, it can be concluded that both the experimental and control groups were homogeneous.

Table 3. Homogeneity test of creativity and motivation pretest and posttest group

Group	Test	Levene's Statistic	df1	df2	Sig
Experimental	Pretest Creativity	.395	1	58	.532
	Posttest Creativity	.218	1	58	.643
Control	Pretest Motivation	.008	1	58	.930
	Posttest Motivation	.757	1	58	.388

Table 4. The Pretest and Posttest of Creativity Score

Groups	Pretest		Posttest		Sig.
	Mean	SD	Mean	SD	
Experimental	41.50	4.55	46.33	2.61	0.000
Control	42.20	4.27	44.03	2.73	0.049

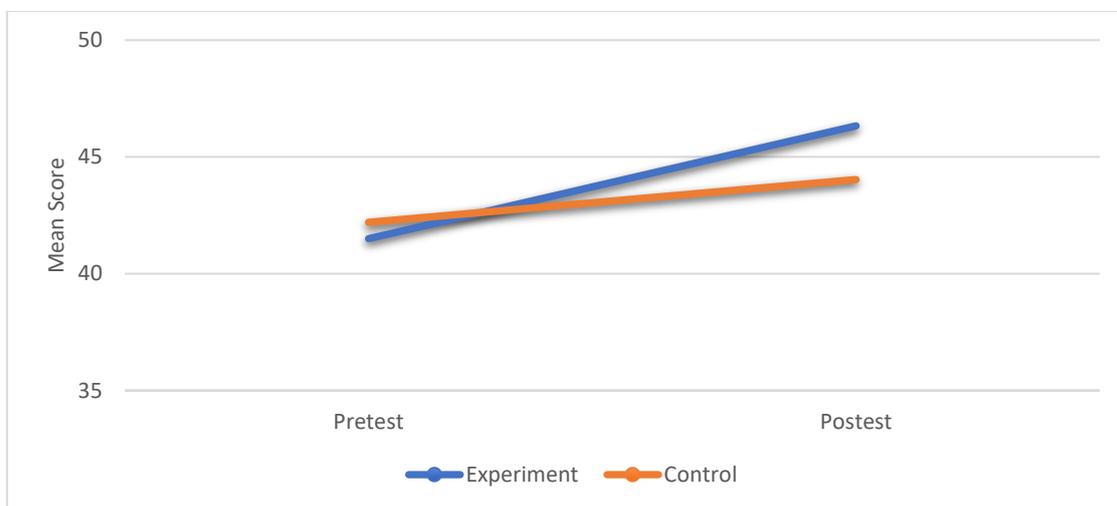


Figure 1. The Pretest and Posttest of Creativity Score

Based on the results of the pretest, the data analysis was carried out using SPSS 24. The results of the creativity pretest data analysis were students got an average score of 42.20, a median of 42, mode 42, and std. deviation 4.27. The pretest was taken in the control group of students who did not receive treatment with a tactical learning model and then a posttest was carried out. Based on the results of the posttest data analysis, the students' average scores were 44.03, median 44, mode 44, and std. deviation 2.73. Based on these data, the control group has a difference of 1.83. The results of the creativity pretest data analysis on students got an average score of 41.50, a median of 42, mode 44, and std. deviation 4.55. After the pretest was taken, the experimental group received treatment in the form of applying a tactical learning model and then a posttest. Based on the results of the posttest data analysis, the students' average scores were 46.33, the median was 47, the mode was 47, and the std. deviation 2.61. Based on these data, the experimental group has a student average difference of 4.83. It was found that the significance value (sig) was $0.000 < 0.05$. It can be concluded that there was an effect of the tactical approach model on the learning creativity of the experimental group of students of Junior high school Number 4 Lubuklinggau, so the results of this study indicated that by using the tactical model there was an improvement in the creativity of students at SMP Negeri 4 Lubuklinggau. It was found that the significance value (sig) was $0.049 < 0.05$. It can be concluded that there was an effect of the tactical approach model on the learning creativity of the control group students of Junior high school Number 4 Lubuklinggau.

Discussion

The Influence of Tactical Approaches on Junior high school Student's Creativity

The results of the study proved that the experimental group had an effect after receiving treatment for the application of the tactical approach model in basketball learning, namely an improvement in students' creativity results in basketball learning because it used a tactical approach model. The application of a tactical approach model in basketball learning can create diverse learning that was adapted to the actual game conditions. Such as the relationship between game tactics, where students try to solve every problem that arises in a game with changing situations. The rationale for a tactical games model was based on three important concepts: (a) interest and excitement of students: learning through games not about games (b) creation of critical conditions with appropriate questions: the uniqueness of the games lies in decision making - deciding what to do in a specific game situation is critical to game performance and (c) transfer of tactical knowledge in games (Mitchell, Mitchell, Oslin, & Griffin, 2020). Creativity is a process of giving ideas in dealing with a problem, as a process of playing with ideas in thinking is a fun and challenging preoccupation for creative students (Supriyono, 2015). Based on the research conducted, the performance and creativity of the ball game include assessment (dribble, passing, and shooting) using a tactical model (Juanda, Budiman, & Ibrahim, 2018). This requires students to think especially in making decisions during the game. In addition, the application of a tactical approach model in basketball learning will be able to stimulate students to think creatively to solve the problems they face, and the tactical approach provides fun or excitement, and excitement in carrying out game learning activities, (Sucipto, 2019). Students' creativity is needed in learning because creativity can create new situations, not monotonous, and interesting so that students will be more involved. In research (Ginanjari, 2014) the tactical approach model in basketball learning has an influence on students' creativity. In line with this idea, Wiranata (2017) stated that the implementation of a tactical approach in learning handball games can increase the creativity of class 2 Lembang students. Learning for students to be able to find interesting forms of games so as to provide opportunities for students to think creatively and students' creative forms also develop in the form of skills that appear when playing in the field (Dupri, Nazirun, & Candra, 2021).

Learning, the way to increase student learning creativity can be through a learning game as well as in the tactical approach model that is applied in basketball learning. According to Sari, Haenilah, & Sofia (2015), children's creativity can be developed through playing activities, through games children can optimize all their abilities. In line with this idea, (Fauziddin, 2016) the most effective way in developing creativity in children is through games, in the simulation experiment, we completed the modeling of basketball and athletes in the process of teaching and tactical training of sports basketball. The tactical approach learning model emphasizes the function of playing skills in game situations, meaning that productivity in performing playing skills takes precedence over the process of performing techniques. By placing more emphasis on the function of playing skills, students are required to always be creative and sensitive to the direction of the ball (Rokhayati, Nur, Gandana, & Elan 2016), So from this explanation, the tactical approach is useful for increasing the creativity of students The simulation results show that the training system constructed in this paper takes many factors into account and can provide more accurate and robust feedback and guidance for tactical approach (Huang, Zhang, Zhu, Zhang, & Meng, 2019), in other research the present study suggests that students involved in a tactical games pedagogical approach unit of generic invasion games present better on-the-ball decision making, when compared with a technique-oriented pedagogical group. Furthermore, this study provides evidence that the tactical games approach offers students with more motor engagement time opportunities (Gouveia, Gouveia, Marques, Kliegel, Rodrigues, Prudente, Ihle, 2019). Based on the results and discussion above, the application of a tactical approach to basketball learning has an effect on increasing the learning creativity of students at Junior high school Number 4 Lubuklinggau.

The Influence of Tactical Approaches on Student Motivation in Junior high school

The results of the study proved that the experimental group had an effect after receiving treatment for the application of the tactical approach model in basketball learning, namely an improvement in student motivation results in basketball learning because it used a tactical approach model. Based on the results of the data analysis above, it was found that the students' motivation was higher in the experimental group which was treated in the form of applying a tactical approach compared to the control group which was not treated in the same way. The application of the tactical approach in learning physical education aims to motivate students and foster student interest to be actively involved in learning and be able to perform various basic movement skills of a game through play activities.

In the results of the post-test it can be seen that the students from the Tactical Games in Basketball unit showed significant differences in motivation to those of the DIB unit in the dribble, shooting, reception, pass and move, spacing, on-ball defense, and off-ball defense (González, Rubio, Feu, & Ibáñez, 2021), the other study, the tactical approach, and technical approach had a significant impact on the basketball skill learning outcomes (Nur & Malik, 2021). According to (Ridwan, Darmawan, & Indiarso, 2017) the tactical approach is an approach that is more directed to the game-drill-game processor can be said to be a game approach, so using this approach will motivate students to be more active in learning. follow learning. Another opinion is (Sultanengtyas & Darmawan, 2018) that a tactical approach is a learning approach that emphasizes students to be active and actively involved during the Physical Education learning process, the tactical approach will motivate students to look more active in the learning process. The tactical games approach improved game performance and psychomotor domain skills of the students better than the conventional approach (Güneş & Yılmaz, 2019), In basketball teaching and training, strengthening the training of tactical awareness is not only feasible but also will deepen the players' understanding of basketball rules. Cultivating and improving athletes' observation ability and theoretical knowledge will have a profound impact on basketball games. Paying attention to the accumulation and summary of game experience is an important guarantee for improving basketball tactical awareness (Pang, 2020).

Learning with a tactical approach model in physical education basketball game material can show a process or working method or sequence with respect to learning materials so that students are directly involved in teaching materials and minimize boredom. According to Gubacs-Collins (Sucipto, n.d.) from a learning perspective, the tactical approach has two main assumptions, namely 1) it is carried out to increase interest and excitement greater than for students, 2) increase tactical knowledge and playing skills. for all students. Learning in the concept of the game can provide fun for students so that students do not quickly feel bored participating in learning. According to Griffin, Mitchel & Oslin in (Yudiana, 2015), the objectives of the tactical approach, are (1) Mastery of playing skills through the link between game tactics and skill development, (2) Providing fun in activities, (3) Solving problems and make decisions during play. The tactical approach model will make it easier for students to understand the explanations and errors that arise in a game and can be corrected through careful observation at the same time so that students are motivated or have the desire to display optimal abilities. presenting better physical fitness. During the assessments, students with no prior basketball experience showed higher levels of top speed; experienced students had higher levels of heart rate. The Tactical Games Approach method favors the physical condition and health of primary education students, which is why this method is recommended when planning Physical Education sessions (Gamero, García-Ceberino, Ibáñez, & Feu, 2021), and Students' learning motivation in the tactical group has a greater influence than the traditional group (Mulyana, 2016), the use of a tactical game approach to student learning interest is the acquisition of the average value of learning interest after the tactical approach treatment is higher than before the tactical approach treatment (Hidayat & Ghufon, 2012) Good learning outcomes can certainly be seen from the motivation of students in participating in learning. According to (Sjukur, 2012) Motivation is an internal process that activates, guides, and maintains behavior from time to time. Motivation in learning plays an important role for students and teachers in learning. According to Wahyuni (2015), very few students who have high motivation are left behind in their studies, and very few

mistakes in learning, and the research by (Rokhayati, Nur, Gandana, & Elan, 2016) increases students' learning motivation who is taught through a tactical learning approach is better than students who are taught through a conventional learning approach, based on the results and discussion above, the application of a tactical approach to basketball learning has an effect on increasing student motivation at Junior high school Number 4 Lubuklinggau.

CONCLUSION

Based on the results of the study, it can be concluded that there was an effect of the tactical approach model in basketball learning on both creativity and student learning motivation at State Junior High School 4 Lubuklinggau. Research conducted on the effect of a tactical approach in basketball learning on creativity and student learning motivation can make a positive contribution to related academic institutions, especially in learning physical education, health sports, providing input to sports coaches, especially physical education teachers, as basic input material for the process of determining learning and training.

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