

Experimental Study of Learning and Interest Models on Football Learning Outcomes in SMP Students

Ivan Riskat Hutagaol

Postgraduate Sports Education Student

Medan State University

North Sumatra, Indonesia

ivanhutagaol789@gmail.com

Abstract --The purpose of this study was to apply experimental studies on Team Games tournament learning models and Student Teams Achievement Division learning models and interest in the results of learning football in junior high school students. This study was conducted on eighth grade junior high school students. then the treatment location was located at SMP Negeri 2, Percut Sei Tuan District, Deli Serdang District, with a sample of 68 students. This study used simple cluster random sampling by level 2 x 2. Data collection techniques in this study used a portfolio sheet to test the results of soccer passing learning and questionnaires to measure student learning interest. Data analysis techniques used two-way variance analysis (ANAVA) and then continued with the Tukey test at a significance level $\alpha = 0.05$. The results of this study are expected to (1) find out whether there are differences between Team Games Tournament learning models with Student Teams Achievement Division learning models of football passing learning outcomes, (2) To find out whether there are interactions between Team Games learning models and cooperative learning models Student Teams Achievement Division on football learning outcomes on passing material, (3) To find out which one is better between Team Games Tournament learning models and Student Teams Achievement Division learning models on football learning outcomes in passing material in high interest student groups, (4) To find out which one is better between Team Games Tournament learning models and Student Teams Achievement Division learning models on football learning outcomes in passing material in students' groups of low interest

Keywords: *Learning Model, Interest, Learning Outcomes football passing.*

I. INTRODUCTION

Education basically plays a role in educating the life of the nation whose goal is to improve the quality of Indonesian people, both social, spiritual and intellectual, as well as professionals in their fields. Education is a major factor in shaping the human personality. Education plays a role in developing the potential of every human being. Therefore, education becomes a necessity for the country to produce future generations of quality that are intelligent, innovative, creative, noble character, and fear of God Almighty.

Physical education is basically education through physical activity which is used as a medium to achieve individ' development as a whole. But the acquisition of skills and other physical development also serves as a goal. Through

physical education, students are socialized into physical activities including exercise skills. Therefore it is not surprising that many believe and say that physical education is part of comprehensive education, and at the same time has a strategic potential to educate (Adang Suherman, MA, 2000).

In the process of learning Physical Education can not be separated from the elements of play and play. In accordance with the state of Physical Education in the present, Physical Education is more directed at providing wider learning opportunities and a conducive atmosphere for students to gain knowledge and develop potential, attitudes, values and social skills that are beneficial to their lives in society. Physical Education should be able to form positive characters in students, and can stimulate students' motivation to do better in their daily lives and in the learning process at school. Each Physical Education learning material must be harmonized with the character that will be formed through the learning process and the aim is in accordance with the existing curriculum.

To achieve the objectives of the physical education material, it must be supported by a conducive learning atmosphere, and this conducive learning atmosphere was created by the teacher in the learning process to support its success in achieving the learning objectives. The application of the model in learning activities is very necessary to facilitate the learning process in order to achieve optimal learning outcomes. Without the application of a good learning model, the learning process will not be directed so that the learning objectives that have been set are not achieved optimally. In addition, the learning process in the classroom cannot take place effectively and efficiently without the application of the right learning model.

One of the physical education materials at school is a game of football. Football is a game played by two teams, each team consisting of 11 players, commonly called teams. Each team tried to put as many balls as possible into the opponent's goal and tried to maintain his own goal so as not to be admitted, (Sarumpaet et al. 1992). Football is a team game played by each team consisting of eleven players including a goalkeeper. Games can be performed with all body members other than hands, unless the goalkeeper is allowed to use his hands (Sukatamsi, 2009).

A good and true pass is needed in a soccer game, because by mastering this technique it will make it easier for our

friends to receive the ball. As well as kicking, passing can also be done with the outside and the inside of the foot or it can be with the head, chest (if already proficient). According to (Josep A. Luxbacher, 2004), there are four basic techniques for passing balls or passing, namely:

a. Preparation phase

- Stand facing the target
- Place the feet that hold the balance beside the ball
- Point your feet to the target
- The legs are placed in a sideways position
- Focus attention on the ball

b. Implementation

- The body is on the ball
- Knee slightly bent
- Swing the legs that will kick forward
- A view of the intended destination
- Kick the center of the ball with the side inside the foot

c. Follow through

- Body weight is moved in the future
- Continue the movement in the direction of the ball
- The final movement goes smoothly
- The kicking foot landed slightly in front of the fulcrum
- Maintain balance

d. Results

- The direction of the ball is straight forward
- The ball is right on target
- Accurate in sending balls
- The ball is easy to accept
- The ball is horizontal along the ground

Arends (2008), the learning model as a guide in determining learning strategies and methods. So the learning model is the operationalization of the underlying psychological theory that serves as a guide for planning learning through a learning strategy to develop all aspects of students' intelligence. One model in learning is the Team Games Tournament learning model and Student Teams Achievement

II. DIVISION LEARNING MODEL.

Cooperative learning of the TGT model is one type or model of cooperative learning that is easy to implement, involving the activities of all students without having to have differences in status, involving the role of students as peer tutors and containing elements of play and reinforcement. STAD type cooperative learning is one type of cooperative learning using small groups with the number of members of each group of 4-5 students heterogeneously. Beginning with the delivery of learning objectives, delivery of material, group activities, quizzes and group awards.

Selection of the right learning model is expected to make students more interested in learning activities. Thus a learning environment will be created for students who are more active. The process of learning activities is not just emphasizing the mastery of knowledge. But especially the emphasis on self-application about what is learned, so that it is formed and

functioned as the property of students' conscience that is useful in their lives. Interests like this will be created if the teacher applies a learning situation that is not boring. Through its creativity, the teacher and students can turn on a more active learning environment as a very enjoyable activity.

Learning interest is a very important variable to determine success in learning. A student who fails his academic assignment is due to inadequate interest. Interest is one of the main factors for achieving success in studies. Research in the United States regarding one of the main causes of student failure studies shows that the cause is a lack of interest. Interest as a psychological aspect is influenced by several factors, both internal (internal) and external (external). Viewed from within students, interest is influenced by ideals, satisfaction, needs, habits and habits. Whereas seen from the external factors interest is not permanent but can change according to environmental conditions. These external factors can be in the form of completeness of facilities and infrastructure, association with parents and public perception of an object and socio-cultural background.

According to Jihad and Haris (2013) learning outcomes are the attainment of a form of behavioral change that tends to persist from the cognitive, affective, and psychomotor aspects of the learning process carried out within a certain time. Whereas according to Suprijono (2013) learning outcomes are changes in behavior as a whole not just one aspect of human potential. Based on the understanding of learning outcomes above, it is concluded that learning outcomes are the abilities of students after receiving their learning experience. These abilities include cognitive, affective, and psychomotor aspects.

III. RESEARCH METHODS

This research was carried out in Percut Sei Tuan 2 Public Middle School 2017/2018 school year. The time to apply the TGT learning model (Team Games Tournament) and type of STAD (Students Teams Achievement Division) was conducted for 4 weeks. With research time, there were 4 meetings. When this research was supported based on the theory of learning outcomes is a change that occurs, such as the understanding of Gagne in Suprijono (2010) suggests that learning outcomes are abilities that students have after they receive the process, indicators that show that ability varies from the simplest to the most complex.

The research was conducted using the experimental method. The experimental method is a research method that is used to find out the influence of certain treatments (Sugiyono, 2010: 12). In this study is to compare two different learning models, namely TGT (Team Games Tournament) and STAD (Students Teams Achievement Division) with variable attributes of student interest consisting of high interest and low interest.

TABLE 1. Grouping of Experimental

Learning model (A)		
Interest (B)	TGT (A₁)	STAD (A₂)
High (B ₁)	9	9
low (B ₂)	8	8
Total	17	17

TABLE 2. To facilitate control of each treatment group, the research design is as follows:

Learning model (A)		
Interest (B)	TGT (A₁)	STAD (A₂)
High (B ₁)	A ₁ B ₁	A ₂ B ₁
low (B ₂)	A ₁ B ₂	A ₂ B ₂

Information :

A1B1 = The learning model taught using the Team Games Tournament (TGT) type cooperative model for groups of students who have high group learning interest.

A1B2 = The learning model taught using the Team Game Tournament (TGT) type cooperative model for groups of students who have low group learning interest

A2B1 = The learning model taught by using the Cooperative model type Student team Achievement Division (STAD) for groups of students who have high group learning interest

A2B2 = The learning model taught by using the Cooperative model type Students team Achievement Division (STAD) for groups of students who have low group learning interest.

IV. RELIABILITY

Reliability of research instruments using retest (test-retest). The validity of the instrument results of learning interest, in the form of surface validity. Reliability of research instruments using retest (test-retest). In this case the formula used to determine the level of reliability of a test is used the coarse product moment correlation formula (Arikunto, 2009: 72), namely:

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\}\{N \sum Y^2 - (\sum Y)^2\}}}$$

where:

- r_{xy} : Correlation between variables X and Y
- N: Number of samples
- X: Score of each item
- Y: Total score

Data analysis technique

Sudjana (1989: 466) Data analysis techniques using two-way Variance Analysis (ANAVA) techniques, and continued with further tests by Gene Kenneth (1984: 417) using the

Tukey Test, with a level of confidence $\alpha = 0.05$. Before the data was used using analysis of variance (ANAVA) ANOVA requirements were tested, namely the Normality Test using the Kolmogorov Smirnov Test, and Homogeneity Variance Test using the F-Test, with a level of confidence $\alpha = 0.05$.

a. Normality test

The normality test used is the Kolmogorov-Smirnov test (Kadir, 2015: 147) carried out by the following steps:

- Formulation of a hypothesis
 - H0: The sample comes from a normal distribution population
 - H1: The sample comes from an abnormal distribution population
- Data is sorted from the smallest to the largest
- Determine cumulative proportions (kp)
- Data is transformed to the default score:
- Determine the area of the zi (z-table) curve
- Determine a1 and a2
 - The maximum absolute values of a1 and a2 are notified with Do
- Determine the price of D-table;
- Testing criteria
 - If Do \leq D-table then H0 is received
 - If Do > D-table then H0 is rejected
- Conclusion
 - Do \leq D-table; the sample comes from a normal distribution population
 - Do > D-table; the sample comes from a population with an abnormal distribution. If it is not normally distributed, non-parametric statistical tests are required.

b. Homogeneity Test

Furthermore, to test homogeneity using the F-test, with the formula:

$$F_{\text{count}} = \frac{[(S^2)_{\text{besar}}]}{[(S^2)_{\text{small}}]}$$

(Kadir, 2015: 162)

The test criteria are accept H0 if Fcount < Ftable and reject H0 if you have other prices.

c. Statistic test

1. Calculating the Number of Squares (JK) for several sources of variance, namely Total (T), the learning model factor denoted by Inter (A), the learning motivation factor denoted by Inter (B), the interaction between learning models and learning motivation symbolized by Interaction (AB), and In (D), with the following formula

$$JK(A) = \sum_{i=1}^a \frac{(\sum Y_i)^2}{n_i} - \frac{(\sum Y_t)^2}{n_t}$$

$$JK(B) = \sum_{j=1}^b \frac{(\sum Y_j)^2}{n_j} - \frac{(\sum Y_t)^2}{n_t}$$

$$JK(AB) = \sum_{j=1, i=1}^{ab} \left[\frac{(Y_{ij})^2}{n_{ij}} \right] - \frac{(\sum Y_t)^2}{n_t} - JK(A) - JK(B)$$

$$JK(D) = \sum_{j=1, i=1}^{ab} \left[\sum Y_{ij}^2 - \frac{(Y_{ij})^2}{n_{ij}} \right] = \sum y_{ij}^2$$

$$JK(T) = \sum Y_t^2 - \frac{(\sum Y_t)^2}{n_t}$$

2. Determine the degree of freedom (db) of each source of variance

$db(A) = na - 1,$
 $db(B) = nb - 1,$
 $db(AB) = (na - 1)(nb - 1)$
 $db(D) = nt - (na)(nb),$ and
 $db(T) = nt - 1$

3. Determining Average Squared Amount (RJK)

1). $RJK(A) = \frac{JK(A)}{db(A)}$ 2). $RJK(B) = \frac{JK(B)}{db(B)}$
 3). $RJK(AB) = \frac{JK(AB)}{db(AB)}$ 4). $RJK(D) = \frac{JK(D)}{db(D)}$

4. Menentukan F_o

1). $F_{o(A)} = \frac{RJK(A)}{RJK(D)}$ 2). $F_{o(B)} = \frac{RJK(B)}{RJK(D)}$
 3). $F_{o(AB)} = \frac{RJK(AB)}{RJK(D)}$

5. Tabel ANAVA

TABLE 3.two-wayanava table

Sumber Varians	JK	Db	RJK	F _{observasi}	F _{tabel} $\alpha = 0,05$
Antar A	JK(A)	$n_a - 1$	RJK(A)	$F_{o(A)} = \frac{RJK(A)}{RJK(D)}$	
Antar B	JK(B)	$n_b - 1$	RJK(B)	$F_{o(B)} = \frac{RJK(B)}{RJK(D)}$	
Interaksi AB	JK(A B)	$(n_a - 1)(n_b - 1)$	RJK(A B)	$F_{o(AB)} = \frac{RJK(AB)}{RJK(D)}$	
Dalam	JK(D)	$n_t - (n_a)(n_b)$	RJK(D)		
Total	JK(T)	$n_t - 1$	-	-	

V. RESEARCH RESULT DISCUSSION

Testing criteria, if $F_o > F_{table}$ at the significant level selected with the numerator db is the appropriate db, then H_0 is rejected, so it can be concluded that there is a difference in the average increase between the groups tested, on the contrary for $F_o \leq F_{table}$, then H_0 is accepted.

Based on the description above, the hypothesis in the discussion of this research is:

- 1) There is a difference between the Team Games Tournament model and the Student Teams Achievement Division learning model of the football learning outcomes in passing material.
- 2) There is an interaction between Team Games Tournament (TGT) learning model with Student Teams Achievement Division (STAD) learning model on the learning outcomes of football in passing material.
- 3) Comparison of Team Games Tournament (TGT) learning models with Student Teams Achievement Division (STAD) learning models on football learning outcomes in passing material in students' low interest groups.
- 4) Team Games tournament (TGT) learning model is better than Student Teams Achievement Division (STAD) learning model on learning outcomes in the material of soccer passing in a group of students with low learning interest

REFERENCES

- [1] Adang, Suherman. 2000. *Dasar-dasar Penjaskes*. Jakarta : Departemen Pendidikan Nasional Direktorat Jendral Pendidikan Dasar dan Menengah Bagian Proyek Penataran Guru SLTP Setara D-III
- [2] Sarumpaet, dkk. 1992. *Permainan Besar*. Jakarta : Dirjen Dikti Proyek Pembinaan Tenaga Kependidikan
- [3] Sukatamsi. 2009. *Meningkatkan Kebugaran Jasmani Melalui Permainan Sepakbola*. Surabaya : PT Gramedia Widia Sarana Indonesia
- [4] A.Luxbacher, Joseph. 2004. *Sepakbola*. Jakarta : Raja Grafindo Persada
- [5] Arends, Richard. 2008. *Learninbg To Teach*. Jogjakarta : Pustaka Belajar
- [6] Abdul Haris, Asep Jihad. 2013. *Evaluasi Pembelajaran*. Yogyakarta : Multi Presindo
- [7] Ahmadi, Abu dan Supriyono, Widodo. 2013. *Psikologi Belajar*. Jakarta : PT Rineka Cipta