

The Comparison between TGT and TGFU Learning Model on Learning Result of Basic Football Technique Skill

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Abstract: This research compared TGT and TGFU learning model toward the skill result of Football basic technique. The research method used in this study was Non-equivalent Group Pretest-posttest Design. The research was conducted at SMAN 3 Kota Serang, Banten province. The population involved all of tenth grade students of SMAN 3 Kota Serang. The sampling technique used in this research was Cluster Random Sampling. The sample involved 80 people from the whole population. This research used Football Battery Yeagley instrument. Statistic analysis technique used was Two Related Samples T Tests and Independent Samples T Tests with the significance level = 0,05. The research result showed that: 1) there were the effects of TGT learning model toward the learning result of Football basic technique skill, 2) there were the effects of TGFU learning model toward the learning result of Football basic technique skill, 3) there were the differences on the learning result of Football basic technique skill between the students who used TGT learning model and the students who used TGFU learning model.

1 INTRODUCTION

The importance of football learning which has become one of the obligatory subject for students in Physical Education is influenced by various factors that support an effective football learning activity in its implementation. Learning activity will work well and effectively if the teacher has good knowledge, creativity and the ability to use an appropriate learning model to anticipate the inadequate condition of facilities and infrastructure in school.

In order to achieve the goal of Physical Education through football learning, it is advised that the teacher apply the cooperative learning model, according to Slavin (2005: 10) "cooperative learning model suggests the idea that the students who work together in learning process and are responsible to their teammates are able to make them learning well".

In addition to cooperative learning model TGT type, football learning can also use Teaching Games For Understanding (TGFU) model to create an effective learning and assist students in mastering basic football techniques skills. TGFU is a learning pattern emphasising on understanding the game.

Bunker and Thrope (1986) in Metzler (2000: 342) explain that: "Teaching Games For Understanding models was based on six component, using the selected game as the organizing center in the instructional unit (1) Game, (2) Game appreciation, (3) Tactical awareness, (4) Making appropriate decisions, (5) Skill execution, (6) Performance".

Reviewing the opinions of experts and observing the results of previous research, the author intends to test the model of cooperative learning TGT type and TGFU model that will be applied in physical education in high school to improve student learning outcomes in the game of football. Based on the explanation of the phenomenon above, the author is interested in conducting research on the comparison between cooperative learning model of team games tournament (TGT) and Teaching Games For Understanding (TGFU) model on the learning result of basic football technique skills.

1.1 Team Games Tournament Models

"It is a set of teaching strategies that share key attributes, the most important being the grouping of

students into learning teams for set amounts of time or assignments, with the expectation that all students will contribute to the learning process and outcomes” (Metzler, 2000, p. 221). Meanwhile the cooperative learning model of TGT type, Slavin (2005, p 170) suggests that "Team Games Tournaments consist of regular cycles of teaching activities, as follows: Teaching: Learning Teams, Tournaments, Team Recognition".

Based on the quotation above, it can be explained that the cooperative learning model of TGT type is a learning model that divides the students into small groups consist of different backgrounds of gender, religion, socio-economic, ethnicity, and academic ability to working together, helping each other implemented by the steps of teaching (class presentation), team learning, tournaments and team recognition.

The cooperative learning is characterized by the existence of the basic elements that distinguish from other learning process. Such elements proposed by Johnson and Holubec (1994) in Metzler (2000, pp. 223) are as follows: 1) *Positive interdependence among students.* 2) *Face-to-face promotive interaction.* 3) *Individual accountability/personal responsibility.* 4) *Interpersonal and small-group skills.* 5) *Group processing.*

1.2 Team Games for Understanding Models

Turner's research (1995, pp. 151) stated that "Learning sports games through tactical approaches can help students in making tactical decision and strategy when playing games." Similarly, Thomas (1994) stated in Turner's research (1995, p.151), that "game learning using the tactical approach model is an effective method in making decisions in sports games. "Therefore, the game is an important component of the physical education curriculum, according to Werner's research, Thorpe and Bunker 1995 (Pearson et al., 2006) "It is better that 65% in physical education learning in the form of games." The results of Mandigo and Holt's research (2004, p.5) explained that "Over 50% of the time provided in physical education programs in Alberta school is mostly taught in form of game learning".

Metzler (2000, p.342) described the steps of the TGFU model as follows: Game Form, Game Appreciation, Tactical Awareness, Making Decisions: What to Do and How to Do (What to do, How to do it, Skill execution, Performance). In the Cushion's writing (2002) explained that "The key to learning approaches in sports games is in the tactical

approach or Game sense." "The tactical approach is not a new concept and has been the subject of research in the 1980s" (Kirk and McPhail 2002). "Some research has given its answer to the challenges of the technical approach". Furthermore, in the summary of O'Connor (2006, pp. 9-13) sourced from several experts, explained that: "Tactical approach is a learning model aimed to deliver children to the early situation of the game in learning process to gain knowledge (declarative and procedural) through opportunities in tactical decision making”.

2 METHODS

The method used in this research is experimental method using non-equivalent group pretest-posttest design, according to sugiyono (2013:112).

Table 1: Research design.

Group	Pretest	Treatment	Posttest
R ₁	O ₁	X	O ₂
R ₂	O ₃	-	O ₄

Note:

R1= Experimental group (TGT learning model)

R2= Control Group (TGFU Learning model)

O1= Pre Test O3= Pre Test

O2 = Post Test O4= Post Test

X = Treatment

2.1 Participants

The participant of this research is 440 first grade high school students (N = 440). 80 students participated in this study are divided into two class (40 students in Class X10 and 40 students in Class X8). The average of the participants' age ranged from 15 to 16 years old.

2.2 Population

The population of this research is the first grade students of SMAN 3 Serang. Consists of 11 classes and 440 students.

2.3 Sample

The sample of this research is 40 students experimental group and 40 students control group gained from cluster random sampling technique conducted before.

2.4 Procedure

This research was conducted for one month consists of 16 meetings held three times a week. In this research, there were two different groups, one experimental group (treated) and one control group (untreated). Within 16 meetings, here are the steps taken:

2.4.1 Pretest

Pre-test was conducted to identify the extent of students' basic football technique skills in both experimental and control groups.

2.4.2 Treatment

The treatment was conducted 3 times a week for 6 consecutive weeks or in other words as many as 16 times of meetings including one pre-test meeting and one post-test meeting.

2.4.3 Posttest

The next step, the sample was again given a test of basic football technique skills, then it was analyzed to find out the learning result of students football playing skills. And finally the hypothesis was tested to answer all research questions that have been proposed before.

2.5 Instrument

The test results in this research gained by utilizing Football Battery instrument. Yeagley, in Baumgartner and Jackson (1995: 371) suggested that the objective football battery is to measure basic football skills in the very first beginning. The purpose of football battery as proposed Yeagley above is to measure the basic skills of football among beginner players that support them in playing football.

Table 2: The criterion of validity and reliability test, *football battery Yeagley* (Baumgartner and Jackson, 1995:371).

No		Judges' Ratings	Composite Standard score
1	Dribble	66	80
2	Wall volley	54	81
3	Juggling	69	74
4	Heading	38	61

3 RESULTS

3.1 Data Description

T-score Data description of the result of basic football technique skill showed in the following table.

Table 3: T-score data description, the result of basic football technique skill.

Group		Pretest	posttest	Gain
Control Group (TGFU learning model)	n	40	40	40
	\bar{X}	89,50	110,50	20,99
	Sd	17,68	11,93	9,23
Experimental Group (TGT Learning Model)	n	40	40	40
	\bar{X}	83,38	116,62	33,23
	Sd	2,13	7,63	6,73

Based on Table 3, t score of basic football technique skills in control group using TGFU learning model on pre-test had average of 89,50, and standard deviation of 17,68, while for post-test had average of 110,50, and standard deviation of 11,93, while for gain had average of 20,99, and standard deviation of 9,23. In the experimental group, the TGT pre-test model had average of 83,38, and standard deviation of 2,13, whereas for the post-test had mean of 116,62, and standard deviation of 7,63, while for gain had average of 33,23, and standard deviation of 6,73.

3.2 Normality Test

Normality test was performed using SPSS version 16. The sample criteria were normally distributed when $P\text{-value} > 0,05$. The result of normality test can be seen in table 4.

Table 4: Normality test.

No	Group	N	Asym. Sig (p-value)	Criteria	Note
1	Control Group Pretest	40	0.012	$p < 0,05$	not Normal
2	Experimental Group Pretest	40	0.002	$p < 0,05$	not Normal
3	Control Group Posttest	40	0.057	$p > 0,05$	Normal
4	Experimental Group Posttest	40	0.056	$p > 0,05$	Normal

Based on the results of normality analysis test in the table above, it is noted that there is $P\text{-value} < 0,05$, so the data is stated not normal. Thus, hypothesis testing is analyzed by using nonparametric test.

3.3 Homogeneity Test

The process of calculating homogeneity test in this study was analyzed by using SPSS version 16. This requirement relates to the similarity of combined variance to the basic football technique skills. Homogeneity test criteria are met if P-value value > 0,05. The results can be seen in table 5.

Table 5: Homogeneity test.

No	Group	N	Sig (p-value)	Criteria	Note
1	Pretest Combined Variance	40	0.941	p > 0,05	Homogen
2	Posttest Combined Variance	40	0.687	p > 0,05	Homogen

Based on the table above, the result of similarity test of combined variance or homogeneity of data noted that P-value > 0,05. This showed that the data is homogeneously distributed.

3.4 Hypothesis Test

3.4.1 Two Related Sample Tests Test

The following table presented the test analysis result of Two Related Sample tests of basic football technique skills in control group treated with TGFU learning:

Table 6: Analysis of two related sample tests of basic football technique skills in control group.

Test Statistics	
	POSTTEST - PRETEST
Asymp. Sig. (2-tailed)	.000

Table 6 showed that the value of Two Related Sample tests on pre-test and post-test data in control group using TGFU learning had a significance value of 0.000. Because of the significance of pre-test and post-test data in the control group using TGFU learning < 0.05, it can be concluded that there is an effect of TGFU learning model implementation on the basic football technique skills.

3.4.2 Two Independent Sample Tests Analysis

The following table describes the results of post-test data of basic football technique skills which both received different learning model treatment.

Table 7: Basic football Technique skill Independent Sample t-test analysis.

Test Statistics	
	GAIN
Mann-Whitney U	265.000
Wilcoxon W	1.0853
Z	-5.148
Asymp. Sig. (2-tailed)	.000

Based on table 7 above, it can be noted that the significance (Asymp Sig) is 0.000. Due to the significance < 0.05, Ho is rejected. Thus, it can be concluded that there is a difference in basic football technique skills between the TGT learning model and the TGFU learning model.

4 DISCUSSION

4.1 The Influence of TGT Learning Model on Basic Football Technique Skill

Based on the research results as described by the researcher above, the overall testing of the first hypothesis shows that TGT type cooperative learning has a significant effect on increasing the basic football technique skills' test score, with the average value of pretest is of 83.38 and the average value average posttest is of 116.62, so that the significant improvement of basic football technique skills in the TGT type cooperative learning group is 33.23. The results of the research have supported the results of research conducted by Bayraktar (2011) "the use of cooperative learning during gymnastics has a significant influence on students' academic success, attitude, and practice skills" and also supports the results of research conducted by Gülay et al (2010) "The effectiveness of physical education learning for 12 weeks packed through cooperative learning model of the ninth grade."

Based on the explanation above, the results of this study have strengthened the results of research revealed by Bayraktar (2011) and Gülay et al (2010), which is cooperative learning type TGT can be used to improve the basic football technique skills among high school students.

4.2 The Influence of TGFU Learning Model on Basic Football Technique Skill

Based on the results of the research as described by the authors above, the overall test of the second hypothesis shows that the TGFU learning has a significant effect on the improvement of the basic football technique skills test scores, with the average pretest is of 89.50 and the average of posttest is of 110.50, thus the extent of improvement on basic football technique skills of the TGFU type cooperative learning group is by 20.99. The results of the proposed study support the theories put forward by Griffin, Mitchael, and Oslin (1997) in Metzler (2000: 350) explains that: "the tactical approach is a threatened process to perfect the appearance of a game in which the combination of tactical elements of consciousness and implementation of expertise." Lijuan Wang and Amy Hwa (2009) then explained in his research results: "more than 90 percent of students love to play better games. "Ho Hong Yau feels the same. He discusses the emotional involvement of students by sharing about past PE learning experiences and by comparing TGFU with a direct skills-based teaching approach." From the explanation above, it can be concluded that learning by using TGFU approach has a significant influence to the development of skill and the level of students' knowledge and playing performance. Tactical awareness or strategy in the game should be developed towards the mastery of basic technique skills "(Werner, Thorpe, and Bunker, 1995) .These TGFU lessons can be used to improve basic football technique skills among high school students.

4.3 The Difference of Learning Result in Basic Football Technique Skills between Students that Use TGT and TGFU Learning Model

Based on the results of research described by the authors above, in testing the third hypothesis, it shows that the TGT and TGFU learning model provide a significant influence on the improvement of basic football techniques skills among high school students. But overall in this study, it shows that the TGT learning model gives better results than the TGFU learning model. This can be seen from the average score data obtained by the group of students using TGT learning model that is equal to 33.23, while the average score obtained by the group of students using the TGFU learning model is 20.99, so the difference is 12.24. In other words, the use of the

TGT learning model provides a better influence to improve the basic football technique skills among high school students. Learning results in physical education related to psychomotor studies, Bloom (1956) argued that the psychomotor aspect is associated with learning achievements that are accomplished through manipulation skills involving muscle and physical strength. So that from the explanation of the learning model and learning result above, cooperative learning model of TGT type and TGFU learning model can be used in football learning to improve students' playing skill. In this case, TGT cooperative learning gives greater influence to the students' basic football technique skills than the TGFU learning model.

5 CONCLUSIONS

Learning models have both strengths and weaknesses, so it can be applied based on the needs of learning. Alike this study, researcher encounters a problem related to student movement skills, so that, the researcher try to apply learning models that would be appropriate to improve the learning results of basic football technique skills. In this research, the learning model applied is TGT learning model in experimental group and TGFU learning model in the control group. Based on the research results obtained, there is difference between those models, the difference in scores obtained increased significantly between the pretest and posttest score. If it is observed from the characteristics of the learning model, the results obtained showed that there is a significant improvement between the pretest and posttest score, it can be caused by psychological factor, that is the student interest and motivation in learning.

REFERENCES

- Bloom, B. S. 1956. *Taxonomy of Educational, The Classification of Educational Goals*, Hand Book 1: Cognitive Domain. USA: Longman Inc.
- Cushion, C. 2002. *Re-thinking Teaching and Coaching Games* (Online). United Kingdom: Department of Sport Sciences, Brunel University.
- Gülçay, O. dkk. 2010. Effects of Cooperative Games on Social Skill Levels and Attitudes toward Physical Education. *Eurasian Journal of Educational Research*. hlm. 77-92.
- Jackson, A.S., Baungartner, T.A. 1985. *Measurement for Evaluation in Physical Education*. Texas Women's University.
- Kirk, D., McPhail, A. 2002. *Teaching Games For Understanding and Situated Learning: Rethinking the*

- Bunker-Thorpe Model. *Journal of Teaching in Physical Education*, 21 (2).
- Metzler, M. W. 2000. *Instructional Model for Physical Education*. Massachusetts: Allyn and Bacon, Inc.
- O'Connor, J. 2006. *The Teaching of Skill in Games and Sport* (Online). Monash University.
- Slavin, R. E. 2005. *Cooperative Learning*, London: Allyn and Bacon, Inc.
- Sugiyono. 2013. *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.
- Turner, A. P. 1995. *An Investigation into Teaching Games for Understanding*. (Dissertation). Greensboro: University of North Carolina.
- Wang, C. L., Ha, A. 2009. Pre-service teachers' perception of Teaching Games for Understanding: A Hong Kong perspective. *European Physical Education Review* 15(3):407-429:364724
- Werner., T. R., Bunker. 1995. *Rethinking Games Teaching*. Loughborough: Department of Physical Education and Sport Science, University of Technology.

