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Game situations, teams games tournament and learning styles: How they affect PJOK learning outcomes?

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Abstract

Changes in attitudes and behavior or student learning outcomes that are based on predetermined learning outcomes are indicators of the effectiveness of student learning in PJOK. However, students' learning outcomes are still not being met to the best of their abilities in practice. The purpose of this study is to examine how learning styles, teams games tournament learning methods, and game situations affect PJOK learning outcomes. Using a quantitative descriptive technique, this study included 28 pupils in grade IV as its sample. Data gathering through the use of assessment tools for cognitive, emotional, psychomotor, and learning styles. ANOVA Two-Way is the data analysis method that is employed. With significant levels of $0.000 < 0.05$, the study's findings demonstrate the impact of the Teams Games Tournament and Situation Game learning method on PJOK learning outcomes. Additionally, learners with visual, auditory, and kinesthetic learning styles showed a significant influence ($p\text{-value} = 0.290 > 0.05$). This study concludes that different learning strategies, such as situation games, teams games tournaments, and learning styles, have different effects on PJOK learning outcomes.

Keywords: Teams Games Tournament (TGT), game situations, learning styles, learning outcomes

1. Introduction

Learning Students at different school levels prioritize learning in the areas of physical education, sports, and health. The goal of physical education is to help people grow not just physically but also mentally, socially, emotionally, and intellectually. This is accomplished by physical activities and gestures. Athletics and well-being. The teaching of physical education in elementary schools is crucial to the process of raising children because it gives them the chance to participate in a variety of learning activities through organized sports, physical education, and health. Yahya & Sufitrono (2020) ^[22] imply that in addition to helping children develop their physical health, physical education in schools also aims to assist them develop their cognitive, emotional, and psychomotor values.

As professionals in the field of education, teachers are expected to select and implement instructional strategies that complement the curriculum in order to help students reach their full potential. As stated by Rusman (2011) ^[17], within the educational system, instructors must be able to select the most appropriate teaching strategy, select and utilize instructional resources, select and employ assessment instruments, oversee instruction in both classroom and laboratory settings, be proficient in the subject matter, and comprehend morality. The learning outcomes set serves as the basis for determining the student learning outcomes in the present independent learning program. However, students' learning outcomes are still not being met to the best of their abilities in practice. As evidenced by learning achievement at the halfway point of the semester, only 25% of students are able to satisfy the learning objectives in each learning resource to the best of their ability. This indicates that pupils at SD N Karangtengah II are still not reaching their full potential in terms of learning. Unsatisfactory learning results can be caused by a variety of causes, one of which may have an impact on the teacher's chosen teaching strategy. Teachers in SD Karangtengah II continue to follow conventional guidelines and practices, such as attempting to employ the lecture method, in which students solely get instruction from the teacher.

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Student learning results can be influenced by employing the most recent teaching techniques in accordance with the circumstances, aptitudes, and traits of the students as well as taking other variables into account. Innovative, participatory, and student-motivating ways are examples of effective strategies (Ackland, 2013) ^[11]. Learner-centered learning is a popular approach to education in the digital age and for autonomous learning curricula. The Situation Game method and the Teams Games Tournament are two learning strategies that can be used with examples (TGT). It is possible to create game situation approaches and Teams Games Tournaments (TGT) that both suit the needs of the students and pique their attention. Based on the traits of students who enjoy playing active activities and have goals in mind (Sepriadi, 2023) ^[18]. According to (Lestari *et al.*, 2022) ^[12], Temas Games Tournament (TGT)-based learning can improve students' cognitive skills. Supported by (Ratu, 2023) ^[16], learning results in basketball games can be enhanced by applying the Temas Games Tournament (TGT) technique. Learning outcomes can be enhanced by Team Games Tournament (TGT) not just in game content but also in long jump material (Afroni, 2014) ^[2]. Thus, it can be said that Temas Games Tournament (TGT) enhances the educational results of students. Nonetheless, it also works wonders for fostering peer support, strengthening cooperation and critical thinking abilities, and student-centered learning (Curşeu & Pluut, 2013) ^[7]. Working in groups will help students learn more effectively since they will be actively involved in the process, which will improve their interpersonal and communication skills (Chen & Yang, 2019) ^[5].

Febriani & Rifki (2020) ^[8] claim that the scenario game approach can foster skill development and encourage participation in enjoyable activities where kids use their imaginations to play games that go from simple to challenging. Iacono *et al.* (2015) ^[10] assert that skills can be enhanced through situational gaming. In addition to the aforementioned criteria, the gaming method of the situation also affects physical, physiological, and technique aspects of intensity Corvino *et al* (2014) ^[6], bolstered by Permadi *et al* (2023) ^[14] claim that scenario games positively affect players' abilities and talents. It is evident from a few of the aforementioned claims that situation games have the potential to enhance students' learning outcomes. On the other hand, a student's learning style is one of the qualities that affects the learning results of a learning activity. As a result, when creating a lesson plan, teachers should consider the learning preferences of these pupils (Siagian, 2015) ^[19]. Students' methods of paying attention, taking in, retaining, choosing, and organizing external information will all be characterized by their learning styles.

Based on the description of theory and phenomena that occurred, researchers conducted a study entitled "The Effect of Game Situations, Teams Game Tournament (TGT) and Learning Styles on PJOK Learning Learning Outcomes".

2. Materials and Methods

This kind of study employs a 2 x 3 factorial design as a pseudo-experiment. This study's analysis employed quantitative descriptive approaches along with ANOVA Two-way. This study employed quantitative approaches, with pseudo-experimental designs serving as a control class that was somewhat functional in terms of controlling external variables that could have an impact on the way the trials were conducted (Caputi & Balnaves, 2001, Stockemer *et al.*, 2019, Teo, 2014) ^[4, 20, 21]. This study employed a pseudo-

experimental design with two treatment groups: The scenario game group and the team games tournament group. Students with kinesthetic, auditory, and visual learning styles are represented in each group. The pretest-posttest design is used in this study. This study will be conducted in up to eight meetings, as per Hajar (2017) ^[9] research, which found that the experimental approach involving eight meetings produced findings. This study was conducted from October 23, 2023, at 07.00 WIB, and was finished throughout each class IV PJOK learning hour. The study's population and sample consisted of 28 grade 4 pupils from SD N Karangtengah II. Random sampling techniques were used to collect samples, which were obtained using the Spin. The Wheel-Random android application. Data gathering through the use of assessment tools for cognitive, emotional, psychomotor, and learning styles. The SPSS program is used to help with the ANOVA Two-Way data analysis technique, which is performed at the significance level of 0.05.

3. Results and Discussion

3.1 Results: Drawing from research findings, each group the situation game group and the team games tournament group was assigned visual, auditory, or kinesthetic learning styles. The study's descriptive findings are shown in the Table below.

Table 1: Descriptive Research

Pretest Team Games Tournament (TGT)				
Learning Style	Auditorium	From Kines	Visual	Total
Mean	59.00	55.00	55.80	56.71
Std. Deviation	4.12	2.70	6.34	4.74
Posttest Team Games Tournament (TGT)				
Learning Style	Auditorium	From Kines	Visual	Total
Mean	73.00	72.00	73.80	73.00
Std. Deviation	5.29	4.83	7.79	5.76
Pretest Game Situation				
Learning Style	Auditorium	From Kines	Visual	Total
Mean	62.00	57.00	62.20	60.64
Std. Deviation	4.12	1.41	8.72	5.90
Posttest Game Situation				
Learning Style	Auditorium	From Kines	Visual	Total
Mean	71.40	69.25	70.60	70.50
Std. Deviation	5.68	4.27	8.04	5.90

The aforementioned Table displays the average value for each learning method, which was determined by the analysis's findings. The average score for the auditory learning type (59.90), kinesthetic learning style (55.50), and visual learning style (55.80) on the pretest for the Team Games Tournament learning method is known. As far as learning styles go, auditory learning mode has the greatest average value. Then, on the posttest for the Team Games Tournament learning method, the average score for the auditory, kinesthetic, and visual learning styles was 73.00, 72.00, and 73.80. It may be claimed that the Team Games Tournament learning approach yielded the greatest visual average score on the posttest. The rise in learning results from the pretest to the posttest further supports the claim that the Team Game Tournament learning technique influences students' learning outcomes.

Pretest scores for the auditory, kinesthetic, and visual learning styles in the Game Situation learning method were 62.00, 57.00, and 62.20, respectively. It can be claimed that the visual category has the greatest pretest average in the Game Situation learning approach. On the posttest for the Game Situation learning approach, the average scores for the auditory, kinesthetic, and visual learning styles were 71.40,

69.25, and 70.60, respectively. Thus, the learning method with the greatest average score is the auditory one. The greatest average from pretest to posttest scores has enhanced student learning outcomes in addition to auditory learning approaches. With an average score of 66.00, it is evident that the auditory learning style has the highest average in the Team Games Tournament learning technique overall. The auditory learning style also had the greatest average score 66.70 in the Game Situation learning approach. Thus, it can be said that the auditory learning style is the most prevalent learning type that enhances learning results.

3.1.1 Prerequisite Test

Table 2: One-Sample Kolmogorov-Smirnov Test

		TGT	GS
N		28	28
Normal Parameters ^a	Mean	64.8571	65.5714
	Std. Deviation	9.77796	7.66632
Most Extreme Differences	Absolute	.160	.147
	Positive	.115	.126
	Negative	-.160	-.147
Kolmogorov-Smirnov Z		.848	.777
Asymp. Sig. (2-tailed)		.468	.582

B. Homogeneity Test: The value of student learning outcomes on the Test of Homogeneity of Variances can be seen from the homogeneity test results; if the value of sig. $0.239 > 0.05$, then H_0 is approved. We can therefore assume that there are no variations among various groupings (homogeneous). The following Table displays the results of the homogeneity test.

Table 3: Levene's test of equality of error variances

F	DF1	DF2	Sig.
1.333	11	44	.239

3.1.2 Hypothesis testing

H_0 is rejected when the value of $F\text{-Calculate} = 24.947 > F\text{-Table} = 2.95$ and the learning technique with a significance

A. Normality Test: The findings of the learning outcomes normalcy test for the Game Situation (GS) and Team Games Tournament (TGT) groups are displayed in the Tests of Normalcy. The learning outcome data is normally distributed when H_0 is accepted based on the findings of the normality test, which also indicate the value of the tournament team games group in the Kolmogorov Smirnov column, the sig value of $0.468 > 0.05$, and the game situation group values of $0.582 > 0.05$. Furthermore, if the sig value in the control class is $0.055 \geq 0.05$, H_0 is accepted, indicating that the game situation groups and team games tournament learning outcomes are normally distributed. The following Table displays the results of the normalcy test.

value of $0.000 < 0.05$ are obtained from the study of the two pathways in Anava. Thus, it can be concluded that the learning results of PJOK Learning students are influenced by the Team Games Tournament (TGT) and Games Situation learning approaches. When the learning style's significance value is 0.290 , H_0 is accepted, $0.290 > 0.05$, and $F\text{-Calculate} = 1.273 < F\text{-Table} = 2.95$ are the values that follow. This indicates that PJOK Learning has no effect on learning results. Therefore, it can be said that while learning styles have little bearing on student learning outcomes, the Team Games Tournament (TGT) and Games Situation learning approaches can enhance student learning outcomes in PJOK Learning. The following Table displays the findings from the analysis of the hypothesis test.

Table 4: Hypothesis Test

Source	Type III Sum of Squares	DF	Mean Square	F	Sig.
Corrected Metode	2677.879 ^a	11	243.444	7.153	.000
Intercept	234630.424	1	234630.424	6.894E3	.000
Learning model	2547.241	3	849.080	24.947	.000
Learning style	86.641	2	43.321	1.273	.290
Learning model * Learning style	47.380	6	7.897	.232	.964
Error	1497.550	44	34.035		
Total	242338.000	56			
Corrected Total	4175.429	55			

3.2. Discussion

This section discusses the discussion of research findings based on the outcomes of hypothesis testing after the hypothesis in the previous description has been tested. According to the findings, students who were taught using the TGT (Team Games Tournament) learning technique had an average pretest score of 56.71 and an average posttest score of 73.00. This demonstrates how the team games tournament learning approach can enhance students' learning outcomes. The Team Games Tournament (TGT) style of instruction places a strong emphasis on learning in groups. As a result, in order for the group to advance and master the content, students must recognize their responsibilities and contribute

by working together, showing respect for one another's positions and existence. (Purwanto & Winarni, 2014) ^[15]. The TGT learning approach fosters accountability, honesty, cooperation, and competition while offering students a more laid-back learning environment. Additionally, TGT gives more kids the opportunity to investigate learning in non-boring, teacher-centered environments. Thus, based on the improvement in student learning outcomes, it can be stated that TGT affects not only the psychomotor but also the cognitive and affective elements of pupils.

Then, during the pretest and posttest, the average score of the students who were taught using the GS (Game Situation) learning method was 60.64 and 70.50, respectively. Student

learning outcomes in PJOK learning can also be enhanced by the game situation learning approach. Collaborating to master the content in both groups and individually is another goal of the PJOK learning process's game situation learning technique. According to (Febriani & Rifki, 2020) [8], the situation game method can help students become more capable and engaged. Fun game websites encourage kids to use their imaginations and can greatly expand their knowledge from simple to sophisticated concepts in the game approach (Iacono *et al.*, 2015) [10]. Learners' cognitive abilities can be enhanced by progressively moving from simple to more complicated instructional materials. Students can show empathy and listen to each other's grievances when it comes to the content they are studying. They can also take responsibility for each other's success in mastering the material and that of their peers in the group. It says that student interactions through social activities might affect how affective pupils are.

Based on the outcomes of the two-track Anaava hypothesis test, which demonstrates a learning approach with a significance value of 0.000, H_0 is rejected when $0.000 < 0.05$ and H_0 is rejected when $F\text{-Calculate} = 24.947 > F\text{-Table} = 2.95$. Thus, it may be said that there is a relationship between learning strategies and student learning results. When the learning style's significance value is 0.290, H_0 is accepted, $0.290 > 0.05$, and $F\text{-Calculate} = 1.273 < F\text{-Table} = 2.95$ are the values that follow. It is intended that every student will be able to be truthful in completing every task in the learning process thanks to the learning environment provided by the Team Games Tournament (TGT) method. TGT gives students additional space for exploration so they can use what they've learned and developed in groups (Artha & Priambodo, 2020) [3]. As a result, it enables learners to develop integrity in the enhanced Team Games Tournament (TGT) curriculum. According to Kamaruddin & Yusoff (2019) [11], when learning with the Team Games Tournament (TGT) method, students act as teachers or peers serve as tutors. The learning activities include game-based and reinforcement-based activities that help students develop responsibility, honesty, teamwork, healthy competition, and active learning involvement. Purwanto & Winarni (2014) [15] stated the belief that games created using the TGT cooperative learning approach enhance responsibility, honesty, cooperation, and competitiveness among students while also allowing them to learn in a more laid-back environment.

Situations involving game learning techniques since game learning approaches are recommended by (Miaz, 2015) [13], there is no competition for academic games. Five instructional activities can be used to organize the learning activities: Students read the material to gain information students with the same expert team topic meet in expert groups to discuss the expert topic material; expert groups conduct group discussions and then return to their original groups to explain the expert topic material; students take quizzes covering the entire topic material; and the best group is rewarded for successfully understanding the topic material. There are additional aspects involved in learning using the Teams Games Tournament technique (TGT and GS), including the three types of learning styles: Auditory, kinesthetic, and visual. The Team Games Tournament learning method's auditory learning style had the highest average overall, scoring 66.00. The auditory learning style also had the greatest average score 66.70 in the Game Situation learning approach. Thus, it can be said that the auditory learning style is the most prevalent learning type that enhances learning

results.

4. Conclusions

H_0 is rejected when the value of $F\text{-Calculate} = 24.947 > F\text{-Table} = 2.95$ and the learning technique with a significance value of $0.000 < 0.05$ are obtained from the study of the two pathways in Anava. Therefore, it IS possible to conclude that the learning results of PJOK Learning students are influenced by the Team Games Tournament (TGT) and Games Situation learning approaches. When the learning style's significance value is 0.290, H_0 is accepted, $0.290 > 0.05$, and $F\text{-Calculate} = 1.273 < F\text{-Table} = 2.95$ are the values that follow. This indicates that PJOK Learning has no effect on learning results. Therefore, it can be said that while learning styles have little bearing on student learning outcomes, the Team Games Tournament (TGT) and Games Situation learning approaches can enhance student learning outcomes in PJOK Learning.

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