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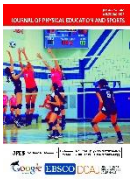

The Influence of Learning Approeach and Eye-Hand Coordination on The Learning Outcomes of Mini Volleyball Passing Skill

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Abstract

The purpose of this research was to find out the influence of learning approach and eye-hand coordination on students learning outcomes of mini volley ball passing skills at Bulungan Elementary School. This research used an experimental method with the 2x2 factorial design. Research samples were 70 students who were taken by purposive sampling technique. The instrument for passing was Braddy Wall Volley ball Test from Johnson BL and Nelson JK, eye-hand coordination by throwing tennis balls on a wall that had been targeted by Ismaryati in Tatag Efendi. The technique used to analyze data is used in two ways with a computer program. The results showed there was a difference in the effect of the drill learning approach and playing on the results of learning the skills of playing mini volleyball, there was a difference in the learning outcomes of mini volley ball skills between students who have high and low eye-hand coordination, and there was interaction between learning approaches and eye-hand coordination on the results of learning skills playing mini volleyball. The conclusion of this research was playing approach-teaching had a better influence on students learning outcomes of mini volley ball passing skills at Bulungan Elementary School. Based on the results of the research, playing approach - teaching is can be used as a method to improve students' passing skills learning.

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INTRODUCTION

Volleyball is included in the physical education curriculum which must be taught at Elementary, junior high, senior high, and vocational schools. Volley ball is one of the big ball team games and sports. Volley ball is one of the sports that has developed and brought to the community. Today, volley ball has also entered the world of education. With the entry of volleyball into the education curriculum from elementary to high school, students will be equipped with skills for their future; besides that volley ball skill learning can be used to attract superior seeds. One of the basic techniques of volleyball is passing.

The passing ability is supported by the coordination of the entire body's motion which ends in the form of a swing which is supported by the strength of the arm muscles and wrists. Coordination is the ability to control body movements. Someone is said to have good coordination when able to move easily and smoothly, movements that are well controlled, and able to perform efficient movements. Volley ball taught at Elementary schools is a mini volley ball.

The results of observations made on volley ball learning on the students of Bulungan 6 Elementary School, Jepara Region showed that: (1) low mastery level of the students' basic passing techniques; (2) low students' volley ball learning outcomes and have not met the minimum criteria of completeness (KKM) set by the school which is 73. Only 31.03% of students reached the KKM, and (3) there were no specific tests about the relationship between eye-hand coordination with passing skills in the students of Bulungan 6 Elementary School, Jepara Region.

In order for students to be able to pass well, they must master the basic passing techniques. The appropriate passing learning can encourage students to be able to do a series of passing movements correctly. This research showed that there were some problems faced by the teachers in increasing the results of passing learning. The problem(s) faced are facilities and/or learning methods. This research aimed to find out the influence of learning approach and eye-hand coordination on students learning outcomes of mini volley ball passing skills at Bulungan 6 Elementary School.

METHODS

This research used an experimental method with the 2x2 factorial design. Research samples were 70 students who were taken by purposive sampling technique. The instrument for passing was Braddy Wall Volleyball Test from Johnson BL and Nelson JK, eye-hand coordination by throwing tennis balls on a wall that had been targeted by Ismaryati in Tatag Efendi. The technique used to analyze data is used in two ways with a computer program.

RESULTS AND DISCUSSION

The mean group drill was approach 85.5. This result showed that the drill approach-teaching group was a better approach than playing approach-teaching group that only got 81.0. The mean of the high eye-hand coordination group was 85.1; better than the mean group of students with the low agility of 76.9.

F_{value} = 42.172 with a probability of 0.000. Because the probability is less than 0.05, H_0 stated that "There are differences between the Drill based-teaching and playing based-teaching approaches to the results of learning the skills of playing mini volley ball" was accepted. F_{value} = 33.864 with probability 0.000. Because the probability is less than 0.05, there are different levels of high eye-hand coordination and low on the results of learning the skills of playing mini volley ball of elementary school students. F_{value} = 4.932 with a probability of 0.030. Because the probability is less than 0.05, then H_0 who states that "There is an interaction between the learning approach and eye-hand coordination towards learning the skills of playing mini volleyball was accepted".

Table 1. Summary of Research Results Data

Teaching approach (A)	Eye-hand coordination		Differences
	High (B_1)	Low (B_2)	
Drill based-teaching (A_1)	$\Sigma X_1 = 1552,8$ $X_{mean} = 91,3$ Min = 79,7 Max = 100,0 SD = 6,9 $n_1 = 17$	$\Sigma X_2 = 1440,7$ $X_{mean} = 80,0$ Min = 74,4 Max = 85,3 SD = 4,1 $n_2 = 18$	$\Sigma Xb_1 = 2993,5$ $Xb_{mean} = 85,5$ Selisih = 112,1 $nb_1 = 35$
Playing based-teaching (A_2)	$\Sigma X_3 = 1424,0$ $X_{mean} = 79,1$ Min = 63,0 Max = 86,7 SD = 5,8 $n_3 = 18$	$\Sigma X_4 = 1254,2$ $X_{mean} = 73,8$ Min = 63,0 Max = 83,9 SD = 6,6 $n_4 = 17$	$\Sigma Xb_2 = 2671,6,0$ $Xb_{mean} = 81,0$ Selisih = 169,8 $nb_2 = 35$
Differences	$\Sigma Xk_1 = 2976,8,0$ $Xk_{mean} = 85,1$ Difference = 128,8 $nk_1 = 35$	$\Sigma Xk_2 = 2694,8$ $Xk_{mean} = 76,9$ Difference = 186,5 $n_1 = 35$	

Table 2. Summary of Two-Way Anova Calculation Results at Synonyms Level $\alpha = 0.05$

Source	Type III Sum of squares	df	Mean square	F	Sig.
Corrected model	2775.768[a]	3	925.256	26.322	.000
Intercept	460052.958	1	460052.958	13087.695	.000
Metode latihan	1482.410	1	1482.410	42.172	.000
Kelincahan	1193.896	1	1193.896	33.964	.000
Metode latihan * Kelincahan	173.358	1	173.358	4.932	.030
Error	2320.003	66	35.152		
Total	465014.000	70			
Corrected total	5095.771	69			

a. R squared = .545 (Adjusted R squared = .524)

Table 3. Tukey Test Results Summary

Compared groups	Means	Mean difference	Sig.	Decision
$A_1B_1 >< A_2B_1$	91.411 – 79.055	12.35621	0.000	Significant
$A_1B_1 >< A_1B_2$	91.411 – 80.000	11.41176	0.000	Significant
$A_1B_1 >< A_2B_2$	91,411 – 73.941	17.47059	0.000	Significant
$A_2B_1 >< A_1B_2$	79.055 – 80.000	-0.94444	0.964	Not significant
$A_2B_1 >< A_2B_2$	79.055 – 73.941	5.11438	0.061	Not Significant
$A_1B_2 >< A_2B_2$	80.000 – 73.941	6.05882	0.018	Significant

Descriptions:
A_1B_1 = The group was given a Drill based-teaching approach with high eye-hand coordination
A_2B_1 = The group that was given a playing based-teaching approach with high eye-hand coordination
A_1B_2 = The group was given a Drill based-teaching approach with low eye-hand coordination
A_2B_2 = The group that is given a playing based-teaching approach with low eye-hand coordination

Volley ball playing skills movements are quite complex because the punch movement is a combination of several movements that must be carried out in an integrated and harmonious manner. The movement of volley ball playing skills when outlined consists of, anticipating the arrival of the ball, placing yourself under the ball, doing a good posture and pushing the ball precisely in the right direction and time. The success of the ability to play volley ball skills is influenced by the ability of players to perform movements in an integrated and harmonious manner. Volley ball skill skills require good eye-hand coordination. Volley ball playing skills are movements using the accuracy of both eyes and hand movements in pushing the ball.

Coordination is a manifestation of each individual's ability to improve performance, making it easier for students to pass or underhand serve. This is because high-eye coordination supports volleyball skills. On the contrary, students who have low eye-hand coordination will have difficulties in learning mini volley ball skill movements. Students who have high eye-

hand coordination will be easier in carrying out tasks than those with low eye-hand coordination and have an impact on student learning outcomes. It can be concluded that both high and low eye-hand coordination can have different influences on underhand serve and volley ball passing skills.

Passing down is a complex movement from a combination of several movements carried out in an integrated and harmonious manner. Non-rhythmic movements are one of the common mistakes in service down and under passing (Beutelstahl Dieter, 2007). If the service movement is less rhythmic then failure becomes greater.

The Drill-based teaching approach allowed students with high eye-hand coordination to receive material passing in full because they have learning characteristics that were faster and easier to follow the lessons given by the teacher. On the contrary, in the effectiveness of learning time, the use of indirect approaches to high eye-hand coordination students was less effective, while low eye-hand coordination students would be more difficult to learn independently. With playing approach-teaching, students' motion skills become uncontrollable because the teacher can not correct the students during the teaching-learning process. Drill based-teaching approach was more effective when applied to students who have low eye-hand coordination.

This is in line with the opinion of Sugiyanto & Sudjarwo (1993) stating, in the drill approach students perform movements according to what the teacher instructs and do it repeatedly. The repetition of this movement makes the automation of the movement result from the repeated implementation of the same movement with the same target field and energy requirements. In addition, with the drill approach, students can directly correct the downward service movement errors, which in turn in the next service blows, the quality will get better. The effectiveness of bottom service learning using the drill approach is also supported by the opinion of Amung Ma'mum & Toto Subroto (2001), stating that the drill approach is a way of learning that emphasizes more technical components so that learning will have an effective impact on the improvement of basic techniques being taught.

This research showed that high eye-hand coordination students were more suitable to use Drill-based teaching because they were able to learn quickly and have high levels of movement skills. However, the Drill-based teaching approach was less in line with the characteristics of elementary school students who prefer to play. Through playing approach-teaching students were able to pass properly and correctly, it was related to the lack of training they have to do. From the description above, it can be concluded that there was an interaction between learning approaches and eye-hand coordination on the learning outcomes of playing mini volley ball skills. This is in line with the research conducted by Idris Moh Latar (2015), which states that the improvement of volleyball skills of students in electronic medicine through the application of drill/drill methods. Jafarzadehpur, Aazami & Bolouri (2007) also stated that there was a connection between the visual system and motor coordination with the athlete's ability.

CONCLUSION

Based on the results of the research and discussion, it can be concluded that there was a difference between the learning approach and the eye-hand coordination approach to students learning outcomes of mini volley ball passing skills at Bulungan Elementary School.

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