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## Effect of using wall media and students' learning styles on volleyball lower passing abilities of tenth-grade students

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### ABSTRAK

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*Kata Kunci :*

*Wall as media*

Volley ball lower passing ability

Learning styles

This study aims to investigate the effect of using walls as media and learning styles on ability to pass of the tenth-grade students' ability of SMAK Suropati Sidoarjo and SMA Santo Yusup Surabaya. A total of 120 tenth-grade students of both high schools were the study subjects divided into the experimental and control groups. A pre-test post-test design randomized control group design was employed. To collect the data, the volleyball passing tests were taken by the students. A two-way ANOVA and tests of homogeneity and normality were used to analyze the data. The results showed that the significant test results accepted the alternative hypothesis. It means that there was a significant effect and no interaction training using the wall vs. non-walls as media and learning styles on the lower passing ability of the tenth-grade students of SMAK Suropati Sidoarjo and SMA Santo Yusup Surabaya.

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### Introduction

Education plays an important role in determining the quality of human resources and the success of development (Kayode, et.al., 2013). The state can achieve the goals of the development if all components of the nation have the same goal to succeed in the development. The success of development can be optimally supported by healthy and fit human resources. Health and fitness can be realized by the formation of the quality of human resources (WHO & Global Health Workforce Alliance, 2013). The government enforces the learning of health insurance into every level of elementary/MI to high school / vocational education equivalent.

Physical education, and sport and health are one of the pillars of National Education (Law on the National Education System (No. 20/2003). Accordingly, physical education must be carried out at every level of schooling ranging from elementary to high school (general and vocational) Through Physical Education, Sports and Health it is expected to realize a nation that is healthy both physically and spiritually and of quality.

Teachers in the implementation of learning must be guided by the curriculum (Dorgu, 2015). The students are expected to achieve the standard competences. To achieve this goal a teacher is required to be creative and innovative in learning activities, both in the use of learning tools and methods so as to create a meaningful and enjoyable learning atmosphere for the students. Learning will be more meaningful and enjoyable if the students experience and do. Teachers in conveying physical learning are required to teach various basic movement skills, game/sports techniques and strategies, sportsmanship, instill character education (values of discipline, sportsmanship, honesty, cooperation, etc.) and habituation to healthy lifestyles (Khan et.al, 2017).

With efforts to achieve this goal a teacher is required to present learning using the right learning tools and methods. The tools and methods of learning play an important role in the success of learning. By using the right learning tools and methods the teacher can facilitate the delivery of material to the students. Using the tools applied to all subjects can be done with playing and competing exercises (Mckweon et.al., 2014).

There are two kinds of Physical education learning materials that are given to students: subject matter and material selection. The subject matter is a subject that must be taught during school hours. While the material selection is a sports activity which is conducted outside school hours in the form of sports extracurricular activities that emphasize understanding, mastery of abilities, and skills in various sports.

Techniques in playing volleyball are very important factors. Asher (1997) suggested that mastering the basic techniques of volleyball playing is one of the elements that determines the win or lose of a team in a competition in addition to the physical, technical and mental conditions. According to Kokasih (1985) techniques in playing volleyball can be interpreted as a way to play the ball effectively and efficiently according to the rules of the game that apply to achieve optimal results.

The game of volleyball is a team sport that requires teamwork in a team, besides requiring collaboration between individuals in a sports team, volleyball is a sport that has complex elements of motion. The complexity is indicated by the involvement of several elements of mastery of skills including mastery of skills. Volleyball is a sport that is popular with all levels of society in Indonesia. This sport is played from the level of children to adults, both men and women. In the beginning, playing volleyball for recreation to fill leisure time, besides these goals many people exercised especially playing volleyball to maintain and improve physical fitness and health. Then it develops towards other goals, such as a high goal of achievement to improve self-achievement, make a name for the region, nation and state (Asher, 1997). Furthermore, Irsyada (2000) states that to achieve maximum performance there must be four aspects that need to be carefully considered and trained by athletes namely physical training, technical training, tactical training, mental training.

The basic technique of passing under volleyball techniques is the most important thing for the volleyball extracurricular activities at the high schools (SMAK Suropati Sidoarjo and SMAK Santo Yusup Surabaya). The students who joined the volleyball extracurricular activities had different skills, because not all of the high school students knew and practiced basic volleyball techniques properly and correctly. To find out the different skills, it needed to be adjusted to the characteristics of the high school students of both schools that still liked game activities.

There are many factors which influenced the basic techniques of volleyball, the technical skills of basic lower passing of the volleyball game techniques need to be traced to the causative factors, whether the mastery of basic techniques is not good, physical abilities that do not support

or methods of training that are less effective and so forth. Such conditions a teacher of physical education and training must be able to evaluate all the factors from both the teacher and the trainers themselves as well as from the participants who follow the practice of volleyball (Palao, et.al., 2009).

One of the factors is learning style. Baig and Ahmad (2016) suggest that there have been the intricate relationship between the teacher and the ways of teaching, and the learner and the style of learning. They constitute the building blocks of teaching and learning. Accordingly, it is essential for teachers to identify and know their students and their learning styles as the familiarity would inform their pedagogical practices and enhance the performance of the learners. The studies support the correlation between academic success and a student' individual learning style relying upon his or her personality type, levels of motivation, intellect, recognition and memory, career choice, time spent in studying, academic environment, reading speed and accuracy scores. Based on the description above, the authors were interested in conducting a research on the effect of learning using wall and non-wall as media and learning style on ability to pass down in volleyball game at SMAK Suropati Sidoarjo and SMAK Santo Yusup Surabaya.

## Method

The purpose of this study was to determine the effect of using the wall and non-wall media also the students' learning styles on their volleyball lower passing ability. This research was conducted at the two high schools (SMAK Suropati Sidoarjo and SMAK Santo Yusup Surabaya). This study uses an experimental method with a simple 2 X 2 factorial design that means to compare two different treatments on research subjects After the research steps covering the testing of research instruments, initial data collection for sample grouping, experimentation and final data collection were taken, a two-way ANOVA was employed to analyze the collected data. The research resulted in the effectiveness of the calculation results using SPSS 16.

## Result and Discussion

### **The difference in the the ability of the lower volleyball passing when applying learning the wall vs. non wall media**

The difference in the the ability of the lower volleyball passing when applying learning the wall vs. non wall media for the tenth grade subjects in Untung Suropati High School Sidoarjoand Santo Yusup High School Surabaya assigned in the control group and experimental group. It shows that there were differences in the ability of the lower pairs in the volleyball game which states a significant result between the experimental class group (wall media) and compared to the control group (non media wall) students. . This can be shown by the F-count value in hypothesis 1 is 1.065 with a probability value of 0.003, or less than the significant level of 0.05, and this has been supported by the results of the research. This result has been tested through F-count in hypothesis 2 of 10.967 with the total value probability is 0.001 or less than the significant level of 0.05.

These results are relevant to the ones of the study by Ajayati (2017) indicating that the role of media, in this case was the the forearm passing in volleyball learning models for junior high school students had a significant difference in their passing ability based on the data from the pretest and posttest before and after the development of the model. They also support the study results of Praniata et.al (2019) that the model of futsal passing training has effective small-sided games used for futsal passing exercises.

### **Differences in the lower passing ability of the students' auditory, visual, kinesthetic learning styles**

This research was conducted to determine the results of differences in the ability of the students who have auditory, visual, kinesthetic learning styles in the experimental group class and the control group class in the lower passing technique in volleyball games. The pre-test results of the control class indicated a minimum value of 76.26, and the maximum result was 78.45, while the results of the post-test in the control group value is 70.00 while for the experimental group is 85.00. Based on the results of the average value of post-test between the control group and the experimental group class, it can be concluded that the students' ability in practicing the lower passing of the experimental class had good ability and had a significant increase. These results were in accordance with what has been suggested by Baiq and Ahmad (2016) that the auditory, visual, kinesthetic learning styles have an important influence on learning. In a learning activity it is one of the supporting factors that have determined the success of students, in addition to being a characteristic factor between the ability of the early stages and the attitudes of students towards subjects and teachers.

### **Significant interaction between wall and non-wall users and auditory, visual and kinesthetic learning styles in lower passing ability**

The results of the research have shown that there is a significant interaction between users of wall media and without wall media and auditory, visual and kinesthetic learning styles on the ability of lower passing in the experimental and control groups in the subject volleyball game for X-grade students at SMAK Untung Suropati Sidoarjo and SMAK Santo Yusup Surabaya. This research activity was carried out to fully be able to know the differences in the abilities in the experimental group and control group in the subject of the basic techniques of lower passing. The post-test (student ability) results of the control group class obtained a minimum value of 60.00 and a maximum of 75.00, while in the experimental group it was 70.00, for the experimental group it was 85.00. Based on the results of the average analysis between the two groups, it has a vulnerable value.

This kind of interaction is consistent with the study results of Fan et. al (2015) revealing that there was an interaction between the students' learning styles and digital game-based learning models.

## **Simpulan**

Based on the results of the research, the following conclusions can be drawn: (1) There were significant differences between students who were trained using wall media, compared with students who were trained to use non-media walls, where learning outcomes using wall media were higher, (2) There were differences in the results of significant under-passing practice between students who had auditory, visual, kinesthetic learning styles, and (3) There was no interaction between learning using wall media and non-wall media with auditory, visual and kinesthetic learning styles on the ability of under-training subjects in the X-class in the volleyball material for high school students of SMAK Untung Suropati Sidoarjo and SMAK Santo Yusup Surabaya. The research will hopefully facilitate the policy makers in identifying and bridging up the gap between learning theories and practices for the development of the students. In addition, knowledge of this information will provide reference values that may help sport education teachers to adjust learning programs (Palao, Manzanares, & Ortega, 2009).

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