ABSTRACT

DWI SULISTIANA. Relations Reaction Speed And Strength Muscle Arm Terhdap Results Punch Speed Forehand Smash In Table Tennis Member of Sport Special School Ragunan Jakarta, June 2016.

This study aims to determine (1) The relationship between the reaction rate (X1) on the results of Speed Punch Forehand Smash (Y), Relationships Muscle Strength Sleeve (X2) to speed results Blows Forehand Smash (Y), (3) and to know the relationship between speed reaction (X1) and arm muscle strength (X2) together to speed results forehand smash (Y).

Data is collected in the table tennis hall Complex Gelora Ps.Minggu Ragunan, South Jakarta on 23 June 2016. This research uses descriptive method with a correlation study, the samples used are members of a special school table tennis sport Ragunan Jakarta as many as 12 people, sampling using total sampling technique. Reaction speed data retrieval using a Stick Nelson, data retrieval arm muscle strength using the Push and Pull Dynamo Meter and data retrieval speed results using software forehand smash Kinovea. Mechanical testing the hypothesis by using statistical analysis techniques simple correlation and multiple correlation followed by t-test at $\alpha = 0.05$ level of significance.

Based on the results of research that has been done, it can be found in the results show: first, there is no meaningful relationship between the speed of the reaction with a forehand smash speed results, with the linear equation y = 14.07 + 0.72, correlation coefficient (ry1) = -0.01029. Secondly, There is a significant relationship between muscle strength arm with a forehand smash speed results, with the linear equation y = 14.07 + 0.72, correlation coefficient (ry2) = 0.639 and the coefficient of determination (ry2²) = 0.4083, which means the speed of reaction variables only contribute to results for Punch Speed forehand Smash 40.83%. Third, there is a significant relationship between the speed of the reaction and the results Arm Muscle Strength Speed Forehand Smash Punch, with a linear line equation Y = 13.21 + 0.72 + 0.013 X1 X2, Ry1-2 correlation coefficient = 0.851 and coefficient of determination (Ry1 -2) ² = 0.7242

which means that the variable speed of the reaction and the results Arm muscle Strength Speed forehand Smash Punch a contribution of 72.42%.

In this study the reaction speed and the arm muscle strength together contributed 72.42% in speed results forehand smash. It is recommended that other researchers are also looking for the factors that contributed well to the result of the speed of a forehand smash.