

ABSTRACT

A CORRELATION BETWEEN ARM MUSCLE STRENGTH AND LONG SERVE (FOREHAND) SKILLS IN BADMINTON EXTRACURRICULAR ACTIVITIES AT SMPN 12 OF LEBONG REGENCY

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This study aims to determine the correlation between arm strength and badminton long serve. This research is quantitative research using Correlation Analysis techniques. The population in this research is athletes from SMP Negeri 12 Lebong, totaling 12 people. To obtain samples in this research, total sampling techniques were carried out. The normality test shows that the test results for arm muscle strength (X) score L_{count} 0.14 with $n=20$ while L_{table} at a significance level of 5% or 0.05 obtained 0.242. Because L_{count} is smaller than L_{table} , it can be concluded that the scores obtained from Pull ups are normally distributed. The test results for badminton long serve skills (Y) score $L_{count} = 0.11$ with $n=20$, while L_{table} at a significance level of 5% or 0.05 obtained 0.242. Because L_{count} is smaller than L_{table} , it can be concluded that the scores obtained from badminton long serve skills are normally distributed. Furthermore, testing the variance of F_{count} (3.98) is smaller than F_{table} (4.20), so the data can be concluded that the scores obtained for arm muscle strength (X) against long badminton service skills (Y) have homogeneous data. The correlation coefficient significance test was carried out by calculating the value of r with r_{table} at $\alpha = 5\%$ with $N = 12$, obtaining r_{table} of 0.69. There is a significant correlation between arm muscle strength (X) and badminton long serve skills in badminton athletes at SMA Negeri 12 Lebong, with a value of $r_{xy} = 0.69 > r_{(0.05)(12)} = 0.576$.

Keywords: *Arm Muscles, Badminton Long Serve.*

