ABSTRACT

AHMAD FAUZI. ***Effectiveness of rope jump and hurdle jump exercises to increased leg power of extracurricular volleyball students in Candra Naya High School.*** **SKRIPSI.** ***Study of Coaching Education Program. Faculty of Sport Science, State University of Jakarta, June 2017.***

This study aims to determine: First, Exercise rope jump can increase leg muscle power of extracurricular volleyball students in Candra Naya High School. Second, Exercise hurdle jump can improve limb muscle power of extracurricular volleyball students' in Candra Naya High School. Third, rope jump exercises are more effective than exercise hurdle jump to boost leg muscle power of extracurricular student in Candra Naya High School volleyball. The place of research in the field of volleyball SMA Candra Naya, Jalan Jembatan Besi, West Jakarta II No. 26, date 22 April 2016 - June 6, 2016.

This study used an experimental method. With population is 22 male students of extracurricular volleyball in Candra Naya High School. While the sample is taken using purposive sampling technique, with sample is 18 male students. Instrument on this study using vertical jump test. Data analysis technique using T-test analysis technique that is done by comparing the value t_h *with* t_t *between the null hypothesis (*H_o*) with the experimental hypothesis (*H_I*) with degrees of freedom (db) (N1+N2-2)=16 at significance level 5% with* t_t *2,12.*

1. The result of the calculation of the start and end of test data using a rope jump workout models derived mean difference (M_D*) = 13,77 with a standard deviation of the difference (*SD_D*) standard error = 1,74 difference in average (*SE_{MD}*) = 0,87 in further calculations obtained value* t_h *= 15,82 and the value* t_t *= 2,26 at the 5% significance level. Thus the value* $t_h > t_t$ *which indicates that the null hypothesis is rejected (*H_o*) is rejected and the alternative hypothesis (*H_1*) is accepted, it can be concluded there is increased limb use a model power rope jum exercises.*

2. The results of the test data calculation using the initial and final hurdle jump training models derived mean difference (M_D*) = 2,25, with a standard deviation of the difference (*SD_D*) standard error = 1,43 difference in average (*SE_{MD}*) = 0,50 in further calculations obtained value* t_h *= 5,1 and the value of* t_t *= 2,26 at the 5% significance level. Thus the value* $t_h > t_t$ *which indicates that the null hypothesis is rejected (Ho) is rejected and the alternative hypothesis (*H_1*) is accepted, it can be concluded there is increased power limbs using a model exercise hurdle jump*

3. Testing the hypothesis of the two groups using the T-test between the two groups with model rope jump exercise (X) and model hurdle jump exercise (Y). From rope jump group gained an average (M_X*) 59,77 standard deviation (*SD_X*) 7,4 and the standard*

error (SE_{MX}) 2,62. Hurdle jump exercise gained an average (M_Y) 47,6 standard deviation (SD_Y) of 6,74 and standard error (SE_{MY}) 2,39. Standard error of both forms of exercise (SE_{MX-MY}) 3,54 T_o the results or T_h = 3,43 and the value of t_t = 2,12 at significance level of 5%. Thus the value of $t_h > t_t$, it can be concluded that the rope jump method is more effective than hudle jump method to increased leg muscle power of extracurricular volleyball student in Candra Naya High School.