

## **Summary**

*COMPARISON OF MUSCLE isotonic EXERCISE AND THE IMPROVEMENT isometric quadriceps femoris muscle STRENGTH IN STUDENTS STUDY PROGRAM STATE UNIVERSITY Sport Science JAKARTA FORCE 2015*

### **ABSTRACT**

*The purpose of this study is to get the quadriceps femoris muscle strength increase student of Sport Science, State University of Jakarta force in 2015, the training method isotonic and isometric exercise method. In addition, search and find which method is more significant in contributing to the resulting increase in quadriceps femoris muscle strength.*

*This research is a quantitative study with experimental method. Total population in this study were all students of Sport Science Study Program, State University of Jakarta Force 2015 and the sample in this study is a student of Sport Science Study Program, State University of Jakarta Force in 2015 were taken by purposive sampling method. Data were collected and processed using test method T-Independent. Samples are involved in pre-post experimental procedure two group design with 16 times practice session using the Leg Extension Machine.*

*The results showed that an increase in quadriceps femoris muscle strength results after a given practice using the method isotonic with 15,16 t-count value greater than the value of the t-table 2.262. In addition, an increase in quadriceps femoris muscle strength results after being given training using isometric with 17.15 t-count value is greater than the value of the t-table 2.262. There was also a greater increase in muscle in training methods isotonic isometric exercise method compared with 2,375 t-count value is greater than t-table 2.101.*

**Keywords: Muscle Strength, Muscle Contraction, Strengthening Exercise Method,**