

## **ABSTRACT**

Syahmirza Indra Lesmana. The Different effect of Training Method and Gender Differences on The Improvement of Muscle Strength and Muscle Endurance on Gender Differences. Thesis, Surakarta. The Postgraduate Program of Sport Science of Surakarta Sebeias Maret University.

The aim of this Research was to find out the difference influence of (1) De Lorme Method and Oxford Method to Increased Muscle Strength of Biceps Brachii, (2) The differences of the improvement of muscle strengthening between men and women . (3) De Lorme Method and Oxford Method to Increased Muscle endurance of Biceps Brachii, (4) The differences of the improvement of muscle endurance between men and women

The research used experimental method involving four variables, those were independent variable ( training method ) and attribute variable (gender), and also for two dependent variable ( muscle strength and muscle endurance). The research design was factorial design  $2 \times 2$ . Forty (40) student of Faculty of Health Science and Physiotherapy Indonusa Esa Unggul University were tested for muscle strength and muscle endurance with maximal repetition..

The technique to analysis the data is Two - Way ANAVA analize with SPSS 11 for Windows Computer Program. The normality test use Kolmogorof – Smirnov test and homogeneity variance use *Levene,s Test for Equality of Varians* at the  $\alpha = 0.05$  level of significance. For data analysis, subject were then divided into men ( $n = 20$ ) and women ( $n = 20$ ) based on their variable training method

The Research concluded that (1) There was difference influence between De Lorme exercise method to oxford Exercise Method on the Improvement of muscle strength, (2) There was different influence between men and women Improvement muscle strength, (3) There was no interaction between exercise method and genders Improvement muscle strength. (4) There was difference influence between De Lorme exercise method to oxford Exercise Method on the Improvement of muscle endurance, (5) There was different influence between men and women Improvement muscle endurance, (6) There was no interaction between exercise method and genders Improvement muscle endurance.

**Key Words :** De Lorme Method, Oxford Method, Muscle strength, Muscle endurance

## BAB I

### PENDAHULUAN

#### A. Latar Belakang

Olahraga merupakan suatu kebutuhan bagi manusia. Dianggap kebutuhan karena manusia adalah mahluk yang bergerak. Manusia dalam melakukan aktifitasnya tidak pernah terlepas dari proses gerak, sebab tidak ada kehidupan tanpa adanya gerakan.

Olahraga sendiri bersifat universal. Dengan kata lain olahraga dapat dilakukan oleh seluruh lapisan masyarakat tidak memandang suku, ras, agama, latar belakang pendidikan, status ekonomi maupun gender. Baik laki-laki maupun wanita dapat melakukan aktifitas olahraga tanpa pengecualian.

Pencapaian prestasi olahraga memiliki beberapa komponen penting yang perlu menjadi perhatian. Komponen tersebut adalah kapasitas kerja kardiovaskuler, pulmonal, performa otot, fleksibilitas, agilitas, dan beberapa aspek psikologi dan sosial. Performa otot sendiri terdiri dari kekuatan otot, daya tahan otot, dan makroskopik otot (Rusli Lutan, 1994 hal 23).

Otot sebagai salah satu komponen yang dapat menghasilkan gerakan melalui kontraktsinya membutuhkan suatu kekuatan untuk menghasilkan *performance* yang tinggi. Kerja otot yang maksimal dapat meningkatkan kemampuan kerja seseorang yang pada akhirnya akan meningkatkan prestasi individu dalam berolahraga. Performa otot yang tinggi tersebut ditentukan oleh kekuatan dan daya tahan otot.