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**EFFECTS OF STRENGTH TRAINING ON
YOUTH**

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INTRODUCTION

Power as a motor ability is one of the basic abilities of man

We can improve anthropological, morphological, and functional characteristics by developing children's motor abilities.

A child 12 years old can have motor abilities developed 90% that an adult's motor abilities (*Janković, 2010*)

If there is a lack of adequate exercise at a certain age, the possibility of a significant impact on certain motor abilities, especially those that are genetically determined, is missed (*Janković, 2010*)

So, children ages 10-12 should perform strength exercises with their own weight and thought play.

while children ages 12 to 14 should perform strength exercises with their body, partner resistance, and learning to perform the technique of exercise with weight (*Round, Jones, Honour, Nevill, 1999*)

The scientific contribution of the results of this research from teaching content in athletics with supplementary training is to obtain data on the most effective methods of work, means of work, and forms of work to develop psychomotor skills at the optimum level for students in strength and its practical application in the training process.

METHODS

This study aimed to identify changes in motor abilities of pupils aged 11-14 after applying training for developing strength to approve the teaching process of physical education.

Strength training was applied only to the experimental group of subjects, while the control group worked only on teaching units of physical education.

For the purpose of this research, a sample of 43 pupils was used

Thus, the sample was divided into two sub-samples, one consisted of 22 students, who, in addition to regular physical education classes in the content of athletics 2 hours a week, applied a supplementary strength training (experimental group), and the other sub-sample of 21 students who only attended full-time physical education classes in athletics 2 hours per week (control group)

the variables in this study were divided into dependent and independent variables

Instruments for assessing basic motor skills were taken from Eurofit Battery 3 tests: standing depth jump (skdalj), sit-ups (trbusnj) and hanging pull-up (izdzgib), and 1 test based on research (Ivanic, 1996): throwing medicine (bacmed), dependent variables

Independent Variable: An experimental program of strength training for ten weeks with an exercise interval of twice a week for 45 minutes

The statistical procedures used in this study were:

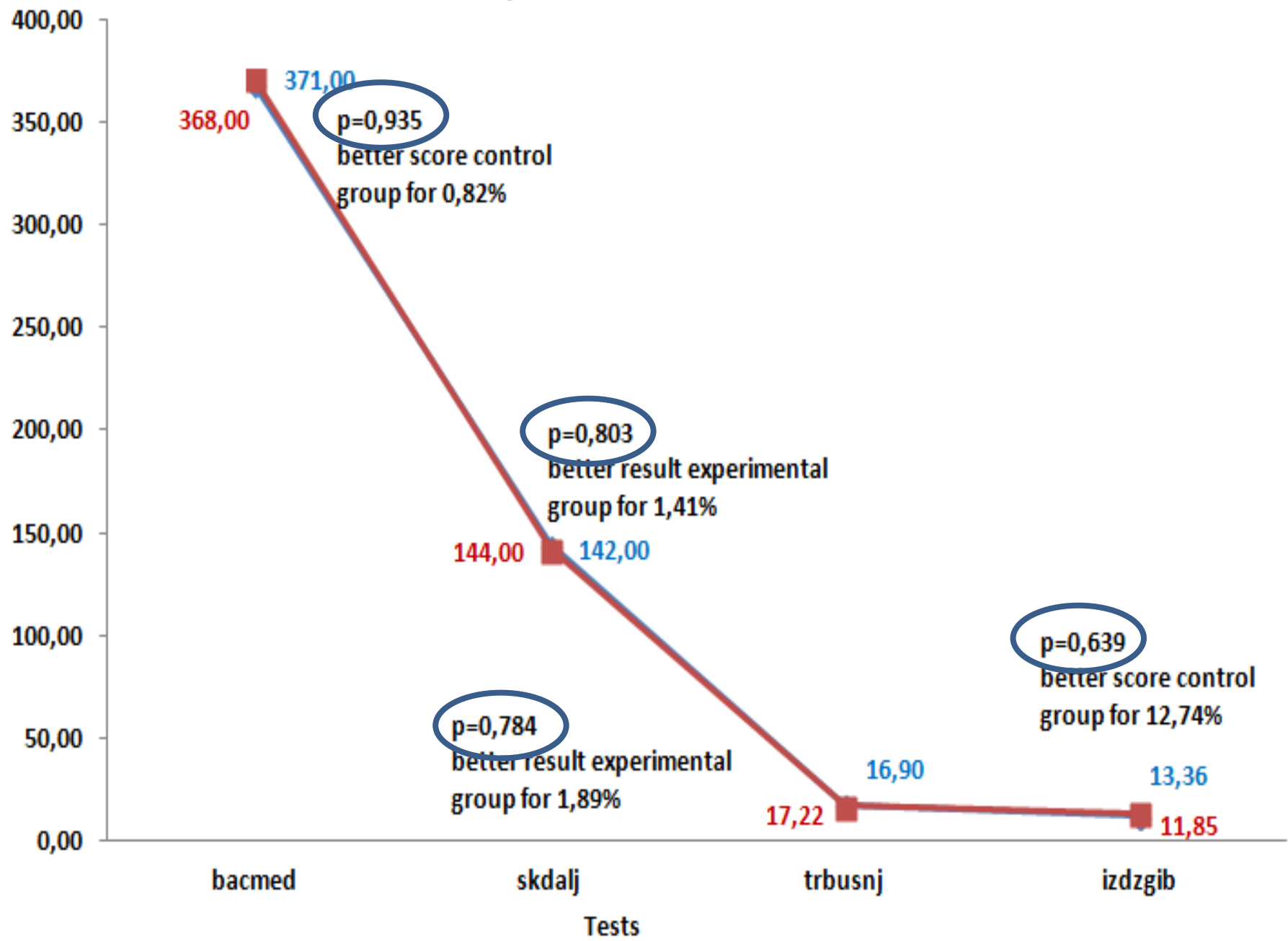
Descriptive statistics-basic descriptive parameters

Comparative statistics-T test for independent and dependent samples (difference between initial and final measurement between groups and within groups of respondents)

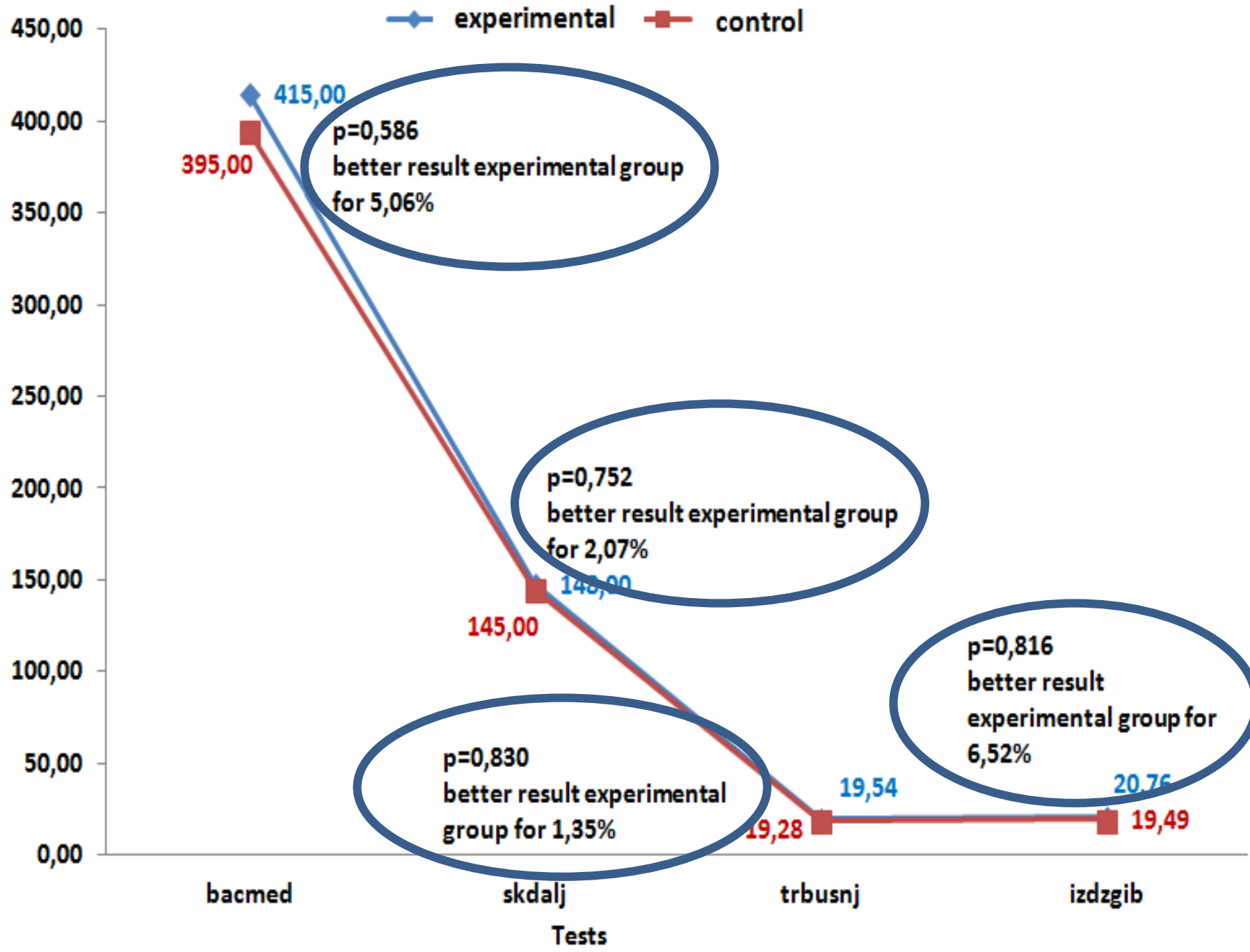
Canonical discriminant analysis (difference between initial and final measurement within groups of respondents)

the value of the results in the experimental and control groups
in the initial measurement

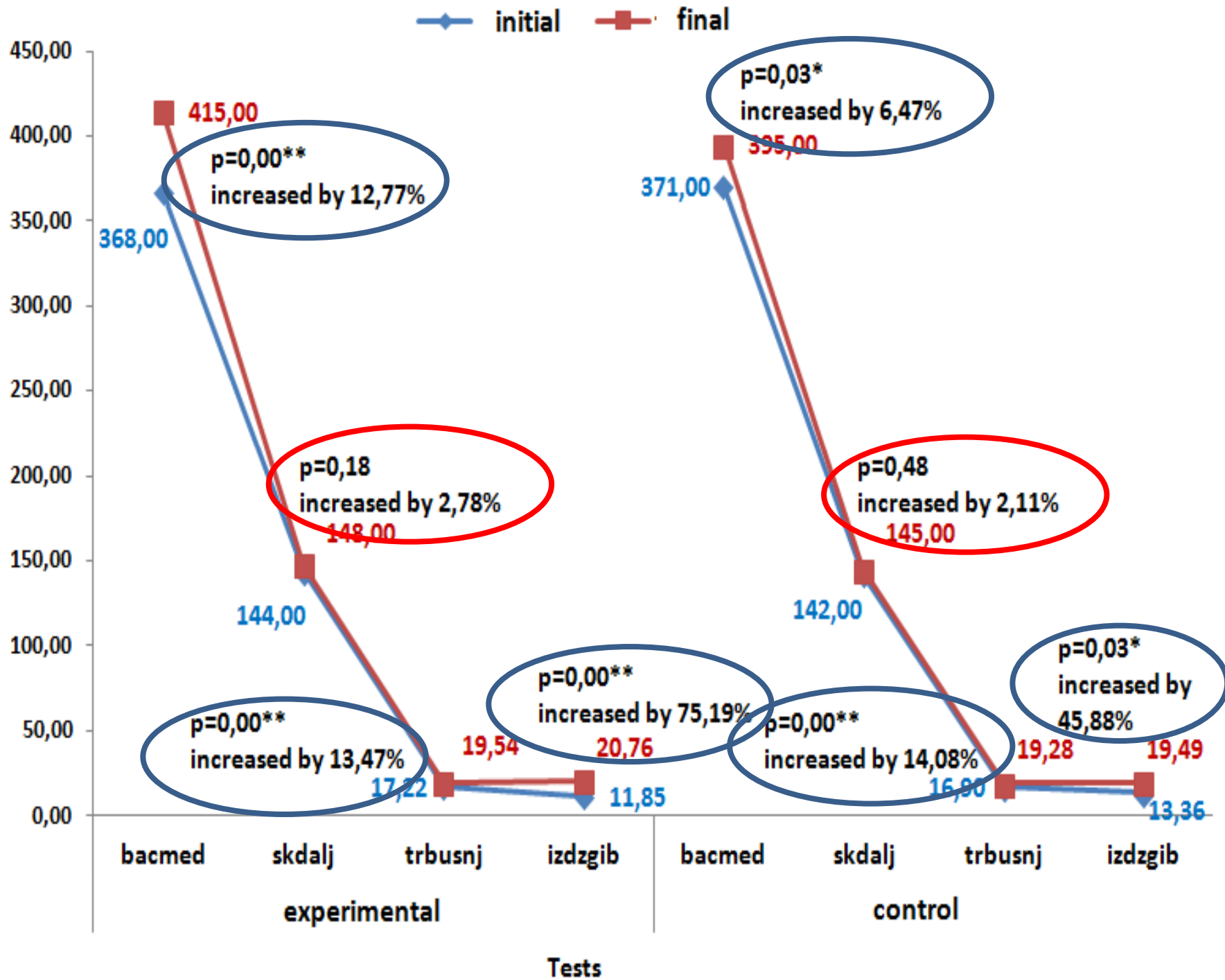
experimental control

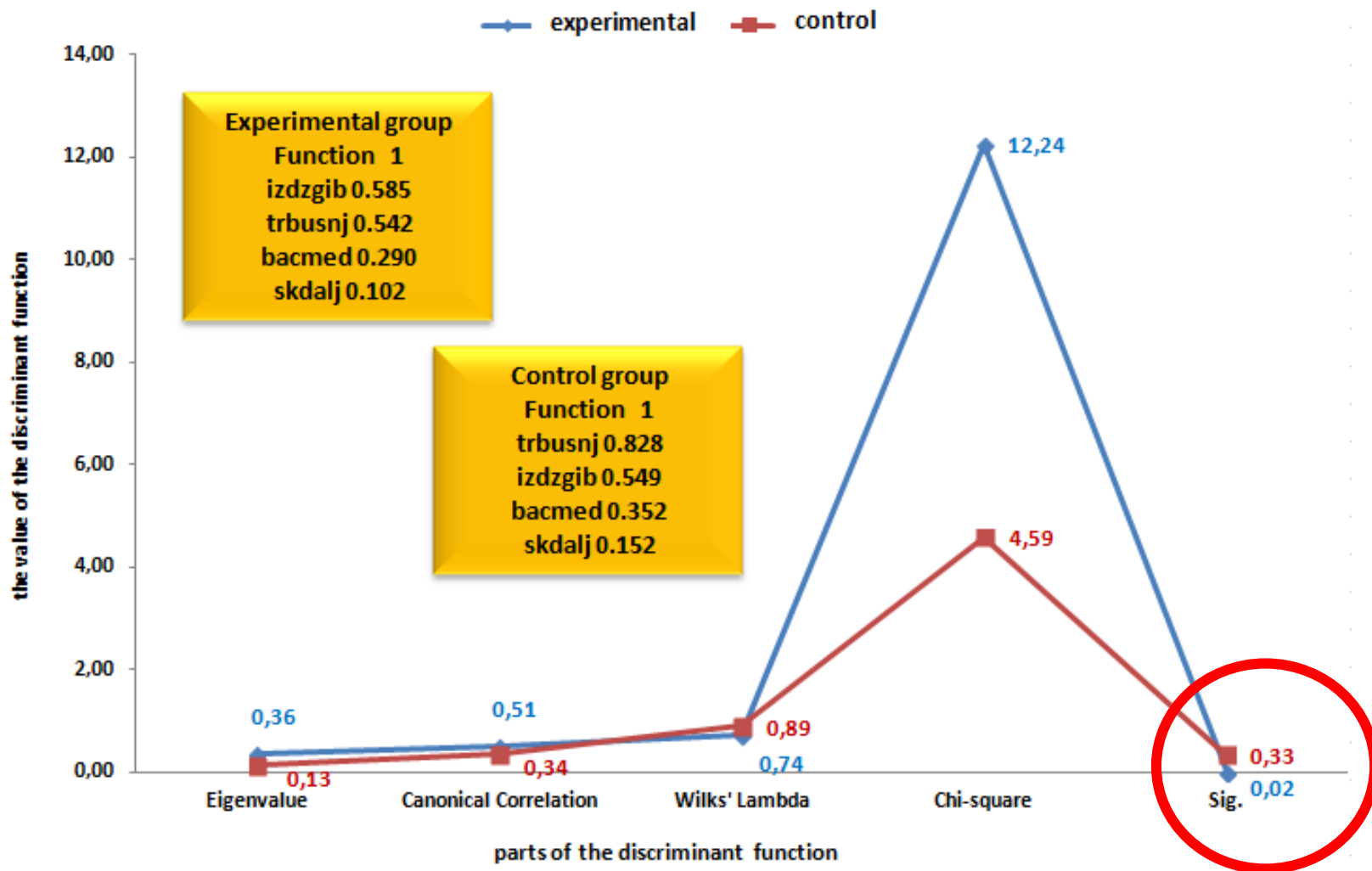


Values of test results in the experimental and control groups



Test values in the experimental and control groups at the initial and final measurements





Also, other researchers who investigated the effects of their experimental research at younger school age and in physical education classes received results similar to the following: that the experimental program led to an improvement in the motor skills of pupils (Faigenbaum, et al., (2015) ; Markovic, 2016; Herodonek, Stankovic, and Dragic, 2011; Peric, Stojiljkovic, and Brankovic, 2005)

CONCLUSION

The study was conducted with the aim to determine the changes in motor abilities of pupils of 11-14 years of age, after applying the strength training for ten weeks.

The study involved 43 students, divided into two groups experimental and control group

Two measurements were made: the initial one, which was performed before the implementation of the training program, and the final one, which was performed after the implementation of the teaching-training

Based on the processing and analysis of the results, research showed that the conducted strength training had a significant impact on the motor abilities of the experimental group.

We can conclude that the strength program was well selected and properly applied to this population, which resulted in an increase in all treated motor abilities.

THANK YOU FOR YOUR ATTENTION