

## GLOBAL QUANTITATIVE DIFFERENCES OF MOTOR ABILITIES BETWEEN TWO GROUPS OF STUDENTS AFTER 12-WEEK FITNESS PROGRAM

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### **Abstract**

*The aim of the study was to find out global quantitative differences of motor abilities between two groups, an experimental group that have done 12 weeks fitness program and a control group that finished one semester of regular faculty program without any extra physical activity. All participants were health sport faculty male students with ages  $19 \pm 1$ . The experimental program included a three times work out per week, two times resistance, weight training and once a week plyometrics training). In order to detect potential differences between the groups we conducted two discriminant analyses; one on data we got from the first assessment and the other on data we got from the second examination. The obtained results show that there were not any significant differences between the groups at the initial assessment, but there were significant differences at the final assessment. One statistically significant discriminant function has been obtained at the final assessment. The values of canonical correlation are pretty high, which is to say that eighteen motor tests make very good difference between two groups. The tests of hands segmental speed, repetitive strength of a trunk, static strength of hands and legs and explosive power of lower limbs are variables that make the most significant difference between the groups. We can say that 12 weeks fitness program, a combination of resistance and plyometric training, has made a positive transformation of motor abilities of the experimental group participants so that made statistically significant differences between the groups. We think that this kind of fitness program should be a part of regular faculty program, so it would increase students' motor capacities and help them to easily pass through all faculty tasks.*

**Key words:** motor abilities, weight and plyometric training, canonical discriminant analysis

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