

Abstract

Author:

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Title:

Comparison of the level of simple, and complex reaction time during non-specific and specific stimuli in a selected sport.

Objective:

The main aim of this study is to determine and compare the reaction times of different performance levels in fencing with the epee, reaction times between women and men. Furthermore, it compares general and specific reaction times.

Methods:

Reaction time to visual stimuli was measured using Fittronic devices: Fitroreaction, Fitro tapping, and Favero targets. The research sample consists of 28 participants, including 18 men and 10 women. The groups are divided as follows: representation, performance, and recreational. Where the groups are divided according to performance on the ladder of the Czech Fencing Association.

Results:

A statistically significant difference was found between the representation and recreational group, in all measured values at $p = <0.001$. With the lowest difference in average of 54.0 ms and the highest difference in averages of 81.5 ms. However, no difference in reaction times was found between the representation and performance group.

Furthermore, no statistically significant difference was found between the reaction of women and men, except for simple general reaction in the recreational group.

Lastly, a statistical difference was found between general and specific reaction time again at $p = <0.001$. In complex reactions witch was faster with epee. But the simple reaction was slower with an epee.

Conclusion:

The study fulfilled my set goals. The first hypotheses was confirmed, while the second was refused. The third one was rejected as well. The results confirm the studies mentioned in the theoretical part. I acknowledge the small sample of women, especially in the recreational category, which should be larger in probable future studies.

The difference between specific and general reaction must be considered in the training preparation of fencers. And we cannot forget to train both types.

Keywords:

fencing, epee, reaction simulators, top sport