

## **Abstract**

**Title of diploma thesis:** Comparison of strength and speed parameters of regularly training and nontraining children at age 11 to 15

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**Aim:** The aim of this diploma thesis is comparison of strength and speed parameters of regularly training and nontraining children at age 11 to 15. I also formulated a work goal which is comparison of trained and nontrained children's performance in selected motor tests (twenty meter sprint and long jump from a standing position).

**Methodology:** At first I studied and processed literature dealing with the problematics being addressed in this diploma thesis. It was followed by the preparation and realization of testing. To answer the research questions and to confirm or reject the hypotheses I used the statistical analysis of the data. I focused on comparing strength and speed parameters of both groups (trained and nontrained children). I wanted to find out if trained children will achieve better results than nontrained children in both selected motor tests. Also how big differences will be between the results of trained and nontrained children. At last I compared differences in the results of selected motor tests separately for trained and nontrained girls and trained and nontrained boys.

**Results:** Based on the results of statistical analysis of the data I found out that the trained children were overall faster than nontrained children. The differences in average times of both groups were quite significant. I also found out that children who train regularly jumped further than children who do not have any other regular physical activity apart from physical education. However the average jump distances of both datasets were not very different.

**Key words:** track and field, speed abilities, strength abilities, speed, strength, children's training, track and field for children, older school-age, comparison of strength and speed parameters, trained children, non trained children