

Abstract

Title: The influence of somatics and the number of steps on skating speed in the U13, U14, and U15 categories.

Objectives: The main objective of this thesis is to determine the extent to which somatics and the number of steps influence speed on the ice and how these factors are interrelated. Another goal is to verify whether skating efficiency, expressed by lower step counts, positively affects the time in repeated sprints (*6x54m*) and whether the number of steps in speed tests is influenced by the individuals' anthropometric values.

Methods: In this thesis, Spearman's correlation coefficient was used to estimate the strength of the relationship between speed, steps counts and anthropometry.

Results: All categories in the 6x54 m test confirm the correlations with the efficiency of a smaller number of steps. A smaller number of steps is more crucial in the Illinois Agility test without the puck than in the Illinois Agility test with the puck, where higher body height and the width of the humeral epicondyle play a larger role in achieving faster performance, especially in the U15 category. A higher body height in the 30 m straight sprint test is a significant predictor of faster test performance.

Keywords: Ice hockey, agility, somatics, speed, youth hockey.