

## SHOULD WE ADAPT THE WAY WE LEARN TO SKI?

Žvan Milan<sup>1</sup>, Stefanov Svetoslav<sup>2</sup>, Ćeremiđić Dejan<sup>3</sup>, Lilić Ljubiša<sup>4</sup>, Matej Majrič<sup>1</sup>, Aleš Lavrič<sup>5</sup>

<sup>1</sup>Faculty of Sport, University of Ljubljana, Slovenia

<sup>2</sup>Ss. Cyril and Ss. Methodius, University of Veliko Tarnovo, Bulgaria

<sup>3</sup>Faculty of Sport and Physical Education, University of East Sarajevo, Republic of Srpska, B&H

<sup>4</sup>Faculty of Sport and Physical Education, University of Priština in Kosovska Mitrovica, Serbia

<sup>5</sup>Faculty of Mechanical Engineering, University of Ljubljana, Slovenia

**Abstract:** Today, learning to ski is still predominantly based on learning by loading and unloading the skis with vertical movement. The aforementioned method has its starting point from the times when we skied with so-called classic skis, long straight skis without a side cut. These are long gone and can no longer be found on the market. However, the methods of learning to ski have remained the same. Carving skis, on the other hand, allow for simpler and easier unloading and thus easier turning the skis into new direction. So, adjusting the ski edge by pushing the knees towards the center of the turn causes increased pressure on the ground-snow, while lateral knee displacement and thus release the ski edge, causes the skis to become unloaded and thus the condition for turning the skis into turns. By moving the knees laterally and lifting the knees in the vertical direction, we therefore fulfill the biomechanical requirements for turning on modern carving skis. Finally, we can therefore conclude with great probability that learning to unload the skis with vertical movement is the opposite of what carving skis allow us to do, that is, unloading the skis with lateral movement and knee lifting! The design differences between classic and carving skis suggest many traditional vertical-load teaching methods may be suboptimal or even ineffective for modern equipment; instead, techniques exploiting lateral knee movement and proper edging on carving skis align better with equipment mechanics and may accelerate functional turning skills.

**Key words:** Learning, methods, carving, design, techniques