

## MODERN SKI TUITION WITH THE SHORT – SKI METHOD

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Received 24. 09. 2012; accepted in revised form 16. 11. 2012

### Abstract

The aim of the article is to get specialists acquainted with the simple, natural and funny short-ski method. It is unnatural to snow plow standing and snow plow turns are nowadays considered the old fashioned elements from the technical point of view. They also slow the process of ski teaching. The article introduces one of the possibilities how to avoid this traditional element and not to slow down the pace of ski learning. On the contrary, the aim of the modern ski methods is to speed-up the learning process and to make it more pleasant for learners.

**Keywords:** Ski teaching, Methodology of skiing on shorties, Short ski – shorties

### 1 Introduction

Mathias Zdarsky is regarded as a pioneer who tried to ski on short skis. In the years 1896 – 1916 he proposed to shorten skis from 294 cm to 150-180 cm [1]. Zdarsky's and Bilgeri's "turning" technique became the basis of "Arlberg ski school". Its founder was a versatile ski racer Hannes Schneider. In 1920 he published the uniform training plan so called "Arlberg technique". Zdarsky's "turning" technique is still the basis for this school. However, Schneider rejected the use of short skis. He introduced the use of skis long approximately 200 cm, it means 15-20 cm higher as the height of a man. Here is probably the beginning of using the long skis during the lessons where students learn downhill skiing [2].

Brief look in the history of using short skis shows two independent possibilities of their using. In the U.S.A. in 1938, an American figure skater Jummy Maden started to use short skis after the accident he had (he started to ski on children skis). Later he proposed double – ended skis and started to use them when performing acrobatic skiing and when he taught skiing to children. In 1940 short skis became well known in the ski schools, esp. in "Kitzbühl ski school". They were used from 1951 when the 1st class of skiing on short skis was opened by its headmaster Karl Koller. In 1952 Koller elaborated "System of teaching on short skis". In this work he says of the advantages of short skis, especially with beginners and older skiers. Here he mentions that it is possible to get rid of fear – the most unpleasant problem with beginners. In 1954-59 the method of teaching on various ski lengths graduated in Kitzbühl ski school [2]. In Alps in 1930 "firngleiter" came into existence. These skis were for mountain climbers who used them during skiing on corn snow. They were meant for skiing on glaciers (icy slopes) and were hand-made; their length was 50 – 90 cm [3].

In 1954 the above mentioned method was "exported" with new short skis, made in Austria, to the U.S.A. to California ski school. The method was really successful here.

Short skis and various ski lengths were mentioned also on the congress INTERSKI in Aspen in 1968. Its founder is Prof. George Twardokens from Nevada University. He lectured here about the "GLM – graduated long-ski method" during teaching skiing. This method was mentioned also on the congress in DVS Schilehrplan – teaching plan of German ski formation [4].

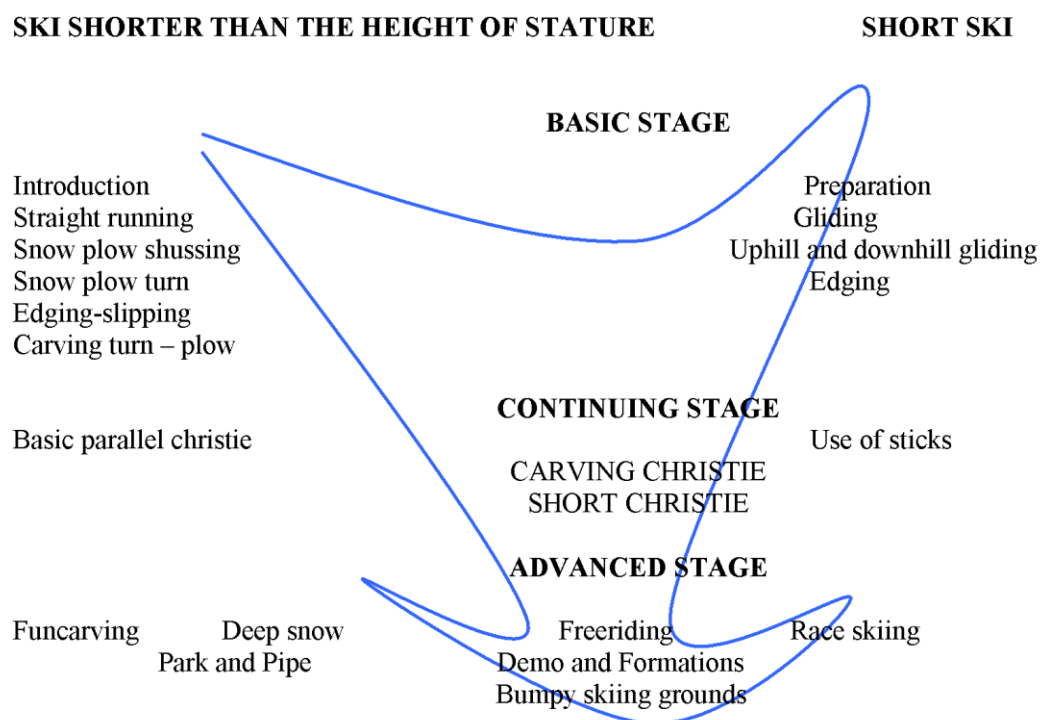
Nowadays the short-ski method is mostly used in the American ski schools. Its guarantee here is PSIA – Association of professional ski teachers of America. The method is known as short ski teaching approach [5].

## 2 Methodology

### AUSTRIAN SKI SCHOOL

Ski sports has made great advance in the last years. First of all, carving skis are much shorter and more cut. Changes in the production of skis need to adjust to techniques and methods of skiing. Modern teaching skiing offers (thanks to this advance) carving technique with new methodologies.

In 2001 Mag. Wallner and Prof. Wörndle made the methodology of Austrian ski school.



*Fig. 1 Scheme of methodology used in Austrian ski school*

Austrian ski school offers various attractive teaching and learning programmes for all age and efficiency groups. Teaching beginners leads quickly and safely to carving and short christies during the teaching skiing on skis shorter than the height of stature (allround carving skis), or during the teaching skiing on short skis [6].

### SHORTIES APPROPRIATE FOR ALL AGE AND EFFICIENCY GROUPS

Carving christies are turns on skis with slight or none slipping elements. Using of shorties offers quick and safe possibility how to teach “how to carve“. They are applicable for all age and efficiency groups of skiers [7].

Shorties should not be longer than 100 cm during teaching adult beginners. They are usually without safety binding; and their side cut is from 4 to 9 m. Beginners can move easier on them, they feel safer, they can change direction easier and shorties glide easier

on the edges than long skis [8]. Advanced skiers and racers can improve their carving technique and they can practice the elements of race skiing [9].

Feeling of the edge and lean during the turn on *inline* (roller skates) is similar to carving skis. It means that the balance and transfer of pressure from legs to skis are comparable. *Inline* are “carving skis on rollers“, thus we advise to use them as preparatory practice before carving itself.

### **TEACHING SKIING WITHOUT PLOUGH**

Skiing technique with elements of gliding is not appropriate for shorties. Short skis are better for cut christies. They have autokinetics, it means that when we put short skis on the edge, it “cuts“ - turns. The speed can be controlled by radius and by closing of christies. We slow down uphill, we use so called *fish hook* [8].

Teaching skiing on shorties leads to parallel carving christies and to short carving christies. We do not do plow turns. We use ski poles only in the beginning like a support, and then when we teach how to turn. We do not use ski poles with *fun carving*.

### **TEACHING SKIING WITH GRADUATED SKI LENGTH**

Teaching skiing on shorties to beginners brings quick progress. Beginners can do safe carving christies after several lessons. Pupils must feel secure and only then they feel good on shorties. The necessary conditions for successful skiing are the following: patience, gentle slope and a good terrain without bumps [10].

The exercises on shorties which were absorbed by pupils are necessary to repeat when pupils learn how to ski on longer skis. Only then pupils can continue in the next learning. The elements which they learned on shorties would be repeated with longer skis. The optimal graduation of ski length is approximately 30 cm. When the pupils are successful, they can continue in their learning on longer ski. When they are not successful, they need to practice skiing on shorties for a longer time. When they have not longer skis, they continue in skiing on shorties and when they manage to buy longer skis, they can learn how to ski on them. When pupils change longer skis too quickly, the fear and not sufficient ability to use them properly can do a lot of harm.

The pupils need to practise all the necessary exercises on shorties during the first days of learning skiing. Only then, according to their abilities, they can continue in learning skiing on longer skis and in a more difficult terrain (steeper or bumpy slope). When we manage to grasp the right time, we will need only a short time to teach pupils to ski on longer skis [8].

Shorties give pupils the immediate feedback, mainly about how did they cope with skidding-slipping technique and cutting technique. Because when we ride on shorties' edges, they are fixed. However, when we glide christies, they are too “trembling“ and unpeaceful. When s/he rides on edges, skis are peaceful. According the ride s/he learns whether s/he is doing well. When s/he is riding christies, the feedback about wrong elements will be revealed soon [7].

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## **METHODOLOGY AND ITS ELEMENTS**

### **3 Preparation**

Teaching skiing should be adequate to the age of pupils. The most important are kinetic exercises and explanation of the movement is less important. The first exercises on shorties should be playful and should be on flat ground. Skating with ski poles and without them, run front and back, and relay race, offer pupils sufficient experience on shorties.

Exercises with rope in pairs, trios, or for example skijoring, and other funny plays, bring the first experiences with christies. Various balls are recommended for pupils to practise christies in groups.

### **Gliding**

**The development of balance** – high intensity of exercises.

**Terrain** – gentle slope, the finishing stretch is flat ground.

**Everybody is skiing freely and try various exercises:**

- Ride forward,
- Ride backward,
- Ride on one short skis,
- A pair ride,
- Christies,
- Valse dancing,
- Gliding.

### **Gliding uphill and downhill**

**Terrain** – gentle slope.

The first christies can be marked in snow, they define the direction with various flags, rope... The direction is then almost always easily managed.

### **Movement exercises with ski poles:**

- Gliding – exchange of ski, upper ski forward, lower ski backward.
- Gliding – step Christies.
- Gliding – ski poles in front of us.

The direction of the ride is marked beforehand with rope or poles. It shows a track between both skis and helps us to find out the right standing and secures that shorties will not go crosswise (do not slide in christies).

### **Movement exercises without ski poles:**

- Gliding – hands roll knees towards the slope.
- Gliding – fists between knees.
- Gliding – both hands are put on outer knee.
- Gliding – upper hand is put on outer knee.

### **Advice:**

- Beware of active christies.
- Start to use lift (the rope tow) as soon as possible.
- Explain the rules how to use lift.
- Preparation before taking the lift.
- Teacher without poles.
- Skiing without poles – easier.

### **Edging**

#### **Teaching of downhill standing**

- Skis are parallelly with width of skier's shoulders, inside ski is forward, weight your outside ski more, roll your arms forward and downhill.

### **Movement exercises with ski poles**

- Traverse – scissors step uphill.
- Traverse – track with downhill pole.
- Traverse – arms are parallel with the slope.

- Traverse – keep ski poles in front of yourself.

### **Movement exercises without ski poles**

- Traverse – put both hands on outer knee.
- Traverse – put uphill hand on outer knee.
- Traverse - downhill hand rolls on downhill foreknee.

### **Carving christie**

Carving christies should be first done near the fall line, then the alternation of ski ride direction could follow; and later we can carve in a more difficult terrain. The radius of the middle christies should be marked in the snow with rope or poles.

**Movement exercises:** (look the part gliding uphill and downhill)

- The pair of pupils holds by the hands.
- The pair of pupils holds by one pole.
- The pair of pupils with a gate ski one after another.
- The pair of pupils ski with a rope behind themselves, side by side.

### **Advice:**

- When pupils can do carving christies properly on a gentle slope, we repeat the movement exercises on longer skis and later on a steep slope.
- In the beginning pupils should ski near a fall line and later can ski longer christies. When they will glide or slip, they should come back near the fall line again and repeat the whole practice.
- First start with middle radius christies, then students should shorten them.

### **New forms of ski racing**

New skiing kit introduces not only new techniques of skiing but also new forms of ski racing. Very interesting are especially those ski-races which take part in carving fun parks. Here racers get points for speed and style. The best racers can take part in Fis Carving Cup. New forms of ski racing offer endless possibilities for ski racer, because these races are influenced by snowboarding racers and by in-line racers [11].

### **Carving fun park**

Fun Park offers us a way how to test our abilities and to become ski racers at once. Fun parks are buoys specially put to marked grounds [12].

Their aim is to win the highest number of buoys. Racers get one point for each buoy. When they need more time to gain a buoy, their points are deducted (taken off). They want to get maximum of points. The racers are divided into 10 efficiency levels (10 – beginners, 0 – professional racers).

We use carving fun parks in ski kindergartens. Teaching carving would not be the right teaching without the slalom in buoys. It helps skiers to learn and feel the new technique of skiing christies. Ten efficiency levels can also motivate each ski-racer to get more points.

## **4 Conclusion**

Methodology mentioned in the article was verified by the research done in winter season 2011- 2012. The research took place in Slovak commercial ski school. There we compared some criteria of efficiency in teaching short ski skiing, graduated ski length skiing,

and skiing on skis of common length, which were 5-10 cm shorter than was the height of skier.

The results of this research show that teaching skiing to beginners on short skis is more effective than teaching skiing on skis of common length.

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