

## LEZINGEN EN WORKSHOPS GEGEVEN DOOR NEDERLAND

### LECTURE # 1 - SKIING

#### **LIMITS TO HUMAN PERFORMANCE IN SLALOM SKIING**

What is theoretically the fastest way to ski a slalom turn?

Are there limitations to human movement in following this theoretically fastest way?

We think the answer to this last question is: 'Yes there are limitations'.

Only when we know what these limitations are, the goal for trainers and ski racers is to overcome them.

The challenge to sport scientists is to provide an exact description of what these limitations are. In other words the challenge to the scientist is to determine the limits of human movements and forces during slalom skiing.

In this presentation we will try on the one hand to present some useful questions for ski research. On the other hand we will consider actual practical and scientific knowledge and try to deduce advice for trainers and ski racers. We will describe a functional and economical way of skiing. In practical workshop 2 we will work out this way of skiing in more detail.

*For power point presentation see file "Human limitation in slalom skiing.ppt".*

*For VIDEO see directory "VIDEO Human Limitations in slalom skiing" .*

### LECTURE # 2 - SNOWBOARDING

#### **INTERNATIONAL RIDERS MEETING**

Theme:           Advanced riders don not come to the ski school anymore.  
                      Why is this so?  
                      How do we get them back?

Discussion:

Let's talk about Snowboarding in a relaxed atmosphere. Drinks are on the house!!!

The Dutch Snowboard Team wishes to cordially invite all participating countries to an open discussion in a relaxed atmosphere. We will be presenting a number of viewpoints about snowboard-related themes. Some examples of the viewpoints are:

- "advanced snowboarders do not come to the ski school any-more"
- "free skiing forms a serious threat to the snowboard sport"

We would be very interested to hear your point of view regarding these and other viewpoints.

We hope to widen our horizons by exchanging thoughts with each other and therefore gaining more insight into international views and developments in the snowboard sport.

We are looking forward to your contribution.

*For power point presentation see file "International Riders Meeting.ppt"*

## LECTURE # 3 - ENVIRONMENT

### **RESPECT THE MOUNTAINS**

This lecture will be given by means of a power point presentation.

*For Power Point presentation see file "Respect the Mountains.ppt"*

## PRACTICAL WORKSHOP # 1 - SKIING

### **SKITEACHING: FLEXIBLE SOLUTIONS**

What do we do in the Netherlands to arrive methodically at a parallel? We will explain the phases; how do you get from snowplough turns to parallel turns and what do we do in the phase in between. Which patterns of movement are required. If we ensure at the end of the basic instruction (up to snowplough turns) that the resulting snowplough turns comply to a number of conditions it can be said that:

- *One stands on the skis with more balance,*
- *One has more control over the speed when underway,*
- *One makes optimal use of the mechanical principles of moving on an incline.*

To attain this we need the following from the student:

1. Central balance position on the skis (front/behind and sideways)
2. Ability to keep pressure on skis consequently keeping speed under control. This is achieved by using the edge angle in combination with the steering pressure.
3. Patterns of movement in straight lines and moving as much as possible on two legs so as to retain balance control. This can be achieved by awareness of the principles of movement on an incline.

#### *Flexible Solutions*

Flexible solutions mean to us that before the phase between snowplough turns and parallels we can roughly choose a course of lessons that is dependent on the following :

- Motor abilities of the client (client-oriented work)
- Circumstances (variables)

In the first instance we assume a fast line of movement. We want to use the set conditions to arrive at parallel skiing as soon as possible. This is explained in the table below.

If a slower course of lessons has to be chosen because of the motor skills of the student we will have to make use of the partial methodical exercise forms (posture exercises, traversing, chains, fans, 1 turn) and/or the functional skills (snowplough turn, traverse, stem turn, sideways slide). We use rhythm when we want the fastest progression.

Ultimately we will consider the client as an individual when choosing our methodology. In the first place we will ensure the basic conditions, after which the motor skills in combination with the circumstances will determine the progression during lessons of the course.

## **PRACTICAL WORKSHOP # 2 - SKIING**

### ***NATURAL POSITIONS: FLEXIBLE SOLUTIONS***

In this workshop we'll work through some exercises to achieve a natural position over/above the skis. The goal is to build up inclination and alpine balance without twisted body positions in the frontal plane. The movement of feet and ankles will appear to be a great help when coming to a neutral position. Methodology in workshop 3 will be used for more advanced skiers.

Summary:

What is theoretically the fastest way to ski a slalom turn?

Are there limitations to human movement in following this theoretically fastest way?

We think the answer to this last question is: 'Yes there are limitations'.

Only when we know what these limitations are, the goal for trainers and ski racers is to overcome them.

The challenge to sport scientists is to provide an exact description of what these limitations are. In other words the challenge to the scientist is to determine the limits of human movements and forces during slalom skiing.

In this presentation we will try on the one hand to present some useful questions for ski research. On the other hand we will consider actual practical and scientific knowledge and try to deduce advice for trainers and ski racers. We will describe a functional and economical way of skiing.

In this practical workshop we will work out this way of skiing in more detail.

## **PRACTICAL WORKSHOP # 3 - SKIING**

### ***FLEXIBLE POSITIONS EN MOVEMENTS***

In this workshop we'll work through some exercises to achieve a natural position over/above the skis. The goal is to build up inclination and alpine balance without twisted body positions in the frontal plane. The movement of feet and ankles will appear to be a great help when coming to a neutral position. Methodology in workshop 3 will be used for more advanced skiers.

As a Ski School we often choose posture training to improve the skiing. We wish to consider the improvement of movement.

Our attention goes out especially to the position and movement of the hips/ pelvis.

Contents:

- Various levels
- Movements and positions
- Advantages and disadvantages
- Active and reactive causes and consequences

## PRACTICAL WORKSHOP # 1 SNOWBOARDING

The Dutch snowboard team are offering two practical workshops. In these workshops we will show how we stimulate the advanced snowboarders to learn more and motivate them in such a way that they continue to follow lessons.

By disguising the exercise material differently the students are challenged to try new things. Interested? Hope to see you in our workshops!

### ***JIBS ON THE SLOPE***

These Freestyle oriented clinics are offered at two levels.

- Basic level:

The build-up to the first tricks is handled in the basic level. We also investigate the freestyle possibilities for the students who have not yet mastered turns. As well as being introduced to freestyle, the students balance and board feeling will improve.

- Pro level:

We are offering a pro-level clinic to participants who already have more experience with the basic slope style tricks. "The 4 dimensions" and the build-up to hardcore slope tricks will be dealt with in this clinic.

Objective: Training for intermediate and expert boarders; with focus on enhanced feeling of the board. Emphasis on switch exercises, so in four dimensions. Emphasizing also the role of the ski school. Let people experience that they do not (yet) master everything.

We will explain how to get youth and the new-school snowboarders to our snowboard schools, we offer them special clinics of a special quality, which you cannot find in a regular ski school. At the end our guests need to have the feeling it is still possible to learn new things and that freestyle has some very easy ways to learn it.

**Basic level:**

- exercises to let them ride switch
- riding switch
- wheelies and switch wheelies on the nose and tail.
- getting in touch with ollie, switch ollie, nollie and fakie nollie. ( explaining them, and try it standing still or with low speeds)
- slipping 180ties and 360ties
- Nose and tail roles.
- slip 180 and jump 180 in one, together 360

*exercises to let them ride switch:*

First tic tac side slipping and then walzer dance.

*riding switch:*

Fine tune it, they should be able to steer.

*wheelies and switch wheelies on the nose and tail.:*

This is a really good balance exercise, you start to do it standing still and then at low speed in flat terrain and soft snow. First in the falling line and then in a traverse, or start for example transverse ( haaks op de val lijn)

*getting in touch with ollie, switch ollie, nollie and fakie nollie. ( explaining them, and try it standing still or with low speeds):*

Again a good balance exercise, choose a flat terrain with soft snow. First try all this in the fall line and then with the traverse, so get the feeling for the toe and heel edge.

*slipping 180ties and 360ties:*

Explain them on which foot they have to stand and that it is really important to keep looking over the shoulder. And how to initiate your rotations from the shoulders and arm. Off course we do this in both directions again.

*Nose and tail roles.:*

This is the point where we start to combine things, the wheeling and the rotations.

*slip 180 and jump 180 in one, together 360:*

Same like a walzer 360 but then you jump the last 180, this works really well with children, sometimes with grown ups this is not so good. For the grown ups you can do single 180ties. I like to use this walz method because it's easier to get more rotation. If your children are talented sometimes here they already start to make 360ties. Both directions

**Pro Level:** ( it's what we call it, to get more people to our school)

- examining the switch abilities.
- Learn them to carve switch, carving falling leave ( halfpipe exercise)
- Improve the wheeling skills, for example with rotations or style.
- Improve the ollie, nollie, fakie ollie and fakie nollie skills.
- Repeat the 180ties and explain how to turn them in 4 dimensions.
- Explain 360ties and exercise them. (off course in the 4 dimensions)
- Then combine these tricks in some hardcore jib tricks

*examining the switch abilities:*

They need to be good at riding switch, if they are not. They need some special education, or spend a little bit more time with riding switch. This is very important, otherwise you will have some serious problems with the rest later on.

*Learn them to carve switch, carving falling leave ( halfpipe exercise):*

It is the same as normal carving, make sure the set up of the boards is good over here. They need to be central on the board. For the falling leave you just start with tumbling and then you can use some unweighting forms.

*Improve the wheeling skills, for example with rotations or style:*

They need to get a better balance and they should be able to do it at higher speeds as well. Than you can use the walzer thing to get rotations during the wheelies.

*Improve the ollie, nollie, fakie ollie and fakie nollie skills:*

Doing it at higher speeds and during the carving normal and switch.

*Repeat the 180ties and explain how to turn them in 4 dimensions.*

After this step everybody should be able to turn them in 4 directions, normally this is hard because everybody is used to only 1 or 2 directions. So here we put the accent at the switch 180ties.

*Explain 360ties and exercise them. (off course in the 4 dimensions):*

Here you can tell something about stabilizing your rotations with your muscles in your upperbody especially the muscles in you stomach. For children here I love to use the walzer again. This step will take a lot of time.

*Then combine these tricks in some hardcore jib tricks:*

Here you can be creative and show your pupils first some easy combinations and then make am harder. Off course you can use these things afterwards in the park on the rails and on the kickers. But you can use these tricks everywhere, it is a really good base.

## PRACTICAL WORKSHOP # 2 : SNOWBOARDING

### X-THE GATES

This is an all-round clinic for the advanced rider. We will start an easy level and will progress to challenging Freestyle and boarder cross elements. We are providing a completely new perception of the slalom factor.

Objective: Explication of a training for intermediate to expert boarders; focussing on enhancing the attraction of snowboarding and the role of the ski school.

We're explaining what kind of lesson / training you can give to more experienced riders to make them enthusiastic about getting more skills by training and specially what you can achieve with a real goal.

- warm up runs
- wood of poles in gears
- wood of poles with olly pylons
- gate run with natural bumps, slope sides etc. (if possible otherwise fantasise)
- gate run with time
  
- in this clinic we show you some possibilities but you can do it as you want and depending on the level of your customers you can do more runs or more difficult runs

Warm up runs (olv Daniel)

10 min.

Long steered turns

Short steered turns

Short carved turns

Wood of poles

In de tussentijd wordt een wood of poles gestoken door Rob en Pascale

If possible try to get a slope which has a few holes and bumps in it!

Later on we can use these for more out of balance facts

| 3 m | 3 m |

6-8 m

| 3 m | 3 m |

6-8 m

| 3 m | 3 m |

Etc.

After the warm up laps we let them go thru the gates.

First explain them about gears. We've 6 gears, and as in the real world we can start in the first gear and if we want a bit faster we gear up. Sixth gear is as fast as you can (taking risk)

1. Straight first row first, second row second and third row third (second gear) (do this to get as many people through the gates as possible)
2. Straight but other line then the first one (third gear)
3. over 2 lanes (third gear)
4. over 2 lanes other line (fourth gear)

There are plenty more possibilities, we now use only 20 min

20 min.

Wood of poles with olly pylons

Now we explain something about ollying.

Let them all in straight running ollying over a small, medium an big pylon.

And explain something about absorbing. Shovel a bump to exercise!

20 min.

If there is enough time we introduce this to the wood of poles!

In the mean time we set a new course on the side of the slope and try to get as much disturbing natural circumstances.

Gate run with natural bumps, slope sides etc. (if possible otherwise fantasise)

Let them go trough in the second, fourth and fifth gear!

20 min

Gate run with time

If there is enough time we give them the possibility to ride with time tracking.

Starter: Daniel (if he rings the walky talky, starter is ready, he says the name of the racer!

The finisher rings the walky to let the starter know he is ready!

Daniel says then trough the Walky 3, 2, 1 start

Finisher starts stopwatch

Finish: Pascale stops the stopwatch

Rob writes down the time he gets from the finisher.

Over again!

As you can see there are many possibilities.

You're guests are certainly/hopefully longer then 1 hour and 15 min in your course so you can make a nice program for them spread over 2 half days for example.

In combination with jibs on the slope you even can introduce faky riding trough the gates etc.

Use your imagination to make it worth full, challenging and not at least a lot of fun!