

For the ski teaching professionals

HOW TO ANALYSE A SKIER

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In skiing, an analysis is a qualitative and quantitative examination with a diagnostic objective, carried out by means of specific techniques to determine the limits, causes and characteristics of an action or movement and to establish relations and possible solutions to specific problems.

The SKIER ANALYSIS is the process by which you, the instructor or coach, searches and obtains information of the actions and movements the skier utilizes to make his/her skis interact with the snow while they slide over it as a consequence of gravitational pull.

The information you obtain by means of this analysis is indispensable in determining the level of development attained by the skier, his strengths and his weaknesses, so that later, together with the information you have on his profile, his ideas and his previous technical knowledge, you can plan your lesson. This plan must be permanently adjusted throughout the lesson for it to be the most appropriate to attain meaningful results.

The Skier Analysis should be a continuous process that you should carry on during the full length of the lesson. It should be present in each student's performance so that you can permanently check, adjust or make new decisions on how to handle and carry out your ski lesson.

The routine used for the analysis can always be the same but the results will vary from one student to the next.

The standard structure of a Skier Analysis is as follows:

TASK ↴ OBSERVATION ↴ EVALUATION
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TASK

It consists of giving the student a job or activity to perform which enhances and heightens what you want to observe or analyze.

The task can be as simple as “Ski a certain distance in the manner that you normally ski” to something specific like “Make a series of short radius turns on that slope” or even more specific like asking him/her to perform one of the exercises described on chapter 7 of “Let's understand skiing”.

The task may or may not be previously demonstrated by the instructor.

In all cases you can require your student to repeat the task several times, either the same way as before or with variations according to your needs.

OBSERVATION

It consists in watching and monitoring the set of actions performed by the skier to achieve the task, based in a superposition of what you are observing over a mental image of an expected performance so that you can determine if there are discrepancies between one and the other and their causes. A good observation should be based on MODELS that the instructor has in his mind to compare with. Examples of this Models of Reference can be: The snowplow turn, the stem or wedge turn, the basic parallel turn, the refined parallel turn and the dynamic parallel turn.

The expected performance must be compared to the closest Model of Reference because it will give you the right actions and the proper amounts and combinations of mechanisms for that particular level (see chapter number 4 of “Let’s understand skiing”).

The Model of Reference you have chosen **must be adjusted and molded in your mind to the action you required your student to perform, creating an EXPECTED MODEL.** For example, if you are asking for short radius turns and the Model of Reference you have chosen for that level of skier is Refined parallel turns, you must generate in your mind a model that has smaller radius than the original model.

At the beginning of the lesson, the first time you look and analyze your student it will serve you to locate and define his Level of Development which will allow you to choose his basic Model of Reference. Once you know his model of reference you can establish your contents, progressions and activities necessary to achieve the goals you set.

In all observation you must take into consideration:

- * The general stance.
- * The mechanisms he uses and how he uses them.
- * The tracks he leaves on the snow (For example the design of the curve; S or Z, width of the tracks, variations between the beginning and end of it, etc.)

It is highly advisable to do your analysis from the point of view of the MECHANISMS (see chapters 5 and 6 of “Let’s understand skiing”). Some of the questions you must make yourself while watching your student’s performance based on the mechanisms are:

QUESTIONS IN THE OBSERVATION OF THE MECHANISMS TO CONTROL BALANCE

- What actions does he use to control his balance?
- Does he keep a centered stance?
- Is his feet separation appropriate?

Is his stance moderately low?
Is this low stance achieved by a balanced flex of all joints involved?
Is his support mainly on the outside ski?
Is the trajectory of his center of mass fluid?

QUESTIONS IN THE OBSERVATION OF THE MECHANISMS TO CONTROL REORIENTATION (PIVOTING)

What actions does he perform to control the reorientation of his skis?
Which part of his body does he use to pivot his skis?
At what points of the turn does he use reorientation mechanisms?
When do those actions end?
Is the intensity of those actions appropriate to the specific situation?
Are both legs complementing each other in their task?
Is there the right rhythm and coordination in the pivoting actions applied?

QUESTIONS IN THE OBSERVATION OF THE MECHANISMS TO CONTROL EDGING

What actions does he perform to control the edging of his skis?
Which parts of his body does he use to edge his skis?
Is his edging progressive throughout the curve?
Is the degree of edging appropriate to the specific situation?
How does he perform the change of edges between turns?
Does he start the change of edges at the right moment?
Is there the right rhythm and coordination in the actions applied?
Does he add other actions which oppose the change of edges?

QUESTIONS IN THE OBSERVATION OF THE MECHANISMS TO CONTROL PRESSURE.

What actions does he perform to control the pressure applied on his skis?
Which part of his body is responsible of the pressure applied on his skis?
How does he perform the change of pressure from one ski to the other?
Does he start the change of pressure from one ski to the other at the right time?
Is the intensity of those actions appropriate to the specific situation?
Are both legs complementing each other in their task?
Is there the right rhythm and coordination in the pressuring actions applied?

EVALUATION

This is the stage where, with the results of the observation you must determine the **causes of the discrepancies** between the observed model and the expected one. **At this point it is imperative to define priority; what is more important. Then you should discard the rest even if it is temporarily.**

At this stage it is also essential for you, the instructor, to try to place yourself in the mental frame of your student to be able to understand **the probable psychological “why”** of what you are observing. For example, if you see your

student making “Z” turns instead of “S” turn, it is probably caused by his fear of having his skis pointing downhill.

Finally, with the results of the evaluation you must determine **what you should work on** with your student or **how to proceed** in the following segment of the lesson. In our example, if the student is making “Z” turns you should continue your lesson on an easier slope.