



Ski Spectacular Instructor Academy

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Clinic Summary Notes

Clinic Topic: Movement Analysis for Snowboarders - Christina Bruno

1. Identify range of motion: our joints can flex, extend, and rotate to create ski and board performance.
2. Observe with intent. Identify cause and effect relationships between the student's movements and the action of their skis, board, or adaptive equipment.
3. What, Where, When, and How?
 1. "What" refers to actual observations. Are you watching to see the track in the snow, the equipment performance, the movements the body is making, or a combination of all of these?
 2. "Where" refers to your position on the mountain relative to the student (observation point). You can observe from above, below, or beside. Different vantage points allow you to see different things.
 3. "When" refers to how frequently you might observe a particular movement or movement pattern. Is performance consistent or does it vary in different situations?
 4. "How" refers to your observation method. You can observe movements from the top down, core out, or equipment up. You may look at a series of turns or one turn at a time.
4. TIRD
 1. Timing of Movements
 2. Intensity of Movements
 3. Rate of Movements
 4. Duration of Movements
 5. Evaluation
1. Corrective feedback should:
 - i. Timely
 - ii. Positive
 - iii. The right amount of feedback
 - iv. Focused
 - v. Use different teaching methods, VAK, etc.
2. Non-judgmental Language:

How to give good feedback? 3 key points in any feedback / coaching conversation:

1. The Situation – Describe the exact situation in discussion
2. The Behavior – Describe the specific behaviors observed
3. The Impact – Describe how their behavior has impacted others

When you structure feedback logically in these three steps, the instructor/student will understand what you're commenting and why you have brought it to attention. Just as importantly, they'll learn how to do things better next time.

6. Positive reinforcement will motivate your student to keep striving for success.

Additional Resources: AASI Snowboard Technical Manual, [Fundamental Mechanics of Alpine Skiing Across Adaptive Disciplines](#)

SNOWBOARDING FUNDAMENTALS	ALPINE SKIING FUNDAMENTALS	FUNDAMENTAL DIFFERENCE
Control the relationship of the center of mass to the base of support to direct pressure along the length of the board.	Control the relationship of the center of mass to the base of support to direct pressure along the length of the skis.	Despite our fore-aft movements being biomechanically different, this still applied perfectly.
Control the relationship of the center of mass to the base of support to direct pressure across the width of the board.	Control pressure from ski to ski and direct pressure toward the outside ski.	Because of snowboarders' sideways orientation on the board, we move laterally across the board's width and create pressure edge to edge.
Regulate the magnitude of pressure created through the board/surface interaction.	Regulate the magnitude of pressure created through ski/snow interaction.	We changed "snow" to "surface" to include other sliding surfaces, such as boxes, rails, logs, cement, etc...
Control the board's tilt through a combination of inclination and angulation.	Control edge angles through a combination of inclination and angulation.	We added <i>tilt</i> terminology and debated if we needed to include both inclination and angulation. "Banking" doesn't have the same negative connotation in snowboarding as it does in alpine skiing, yet it's still important to differentiate between the two for the desired outcome.
Control the board's pivot through flexion/extension and rotation of the body	Control the skis' rotation with leg rotation, separate from the upper body.	We continued to use <i>pivot</i> as it relates to the board and rotation as it relates to the body. Where the alpine fundamental promotes upper and lower body separation at the pelvis and femur bone, the snowboarding fundamental additionally uses spine rotation in several applications. Riders can also accomplish pivot with flex and extension movements of the knees and ankles.
Control the twist (torsional flex) of the board through flexion/extension and rotation.	N/A	Twist was added as the sixth snowboarding fundamental because we can actively twist the board with distinct movements, whereas, in alpine skiing, twist is created as a result of another movement.