From the Top

By Witold Kosmala
PSIA-E Alpine, Level III
K2 Ambassador

This is going to be an awesome season. I just know it. In fact, the first of October started with the snow and cold and wind, just like our winters often are (and it finished the same way.) Everyone is getting ready. Many of our instructors and patrollers are heeling up from knee and hip replacements (some got taller because of that), others are working out to get in shape and others yet to STAY in shape. Several instructors and patrollers participated in the North Carolina Senior State Games in Raleigh, NC in late September. Larry Horine walked away with two golds and one silver (he is now in the 80 – 84 age bracket, wow), Bill Close with a silver, John Gaida with a bronze, not to mention other high scores by these and our other participants. In fact, Bill Close was at the Games with his wife BJ who also scored silver in the same event (Running Long Jump) as her husband. Bill narrowly missed a bronze medal in the standing long jump by a mere three quarters of an inch and BJ just missed a bronze medal in the shot put by one quarter of an inch! I bet you, they train together. Congratulations to all of you participants!
It looks like there is a discrepancy in the October issue of Peak Performance on page 10 where 7 PSIA-E snowsports areas of Region 7 are listed. Our friends from across the border in Gatlinburg, TN were not listed. But, there is a good excuse for that, they are officially in the Central Division. Read what John Cossaboom, the Director of Gatlinburg Snowsports Center has to say about this on page 10. I hope this oversight will be forgiven. Everything they do is with the Eastern Division. They have nothing to do with the Central Division, other than just being on the other side of a line on a map.

On Oct. 15 – 16 we had the 34th Annual Woolly Worm Festival in Banner Elk, NC. The woolly (wooly) worm is a caterpillar or the larvae of the Isabella tiger moth. The woolly worm actually has two life cycles, June and July as well as in the Fall. Once the woolly worm has found its home for the winter, it creates a natural organic antifreeze that protects the interior of its cells down to as low as –90 degrees Fahrenheit. Everything else freezes, but the woolly worm does not die. The woolly worm stays in its “frozen” state until May, when it emerges as a colorful moth. The woolly worm is believed to have a 80-85% accuracy rate in predicting the weather. This year’s woolly worm, named Yo-Yo Ma was the grand-prize winner and won the race and thus the right to make the official winter weather forecast. In a nutshell, it predicted mostly cold and snowy winter months.

Woolly worm did not say anything about what kind of Indian Summer we are going to have. In fact, we already had some awesome days mixed in between the cold ones. Colors of leaves were absolutely beautiful. Many of us saw them in real life, but we all have friends less fortunate who don’t see the colorful foliage, so I attached a few teaser photos for them.

Woolly worm also did not say anything about the opening date of Sugar Mountain’s slopes. Last season we opened on the 6th of November. Who can guess this year’s opening date?

We are not the only ones who are expecting large amounts of snow this season. Our friends at Mammoth Mountain, CA are expecting as much as 1,000 inches of snow this season. Last season they had 668.5 inches, more than any other year in the last 40 years, and they skied on the 4th of July.

There are other news in skiing: Fischer is pioneering new boot technology, like Elan did the parabolic skis. Be sure to read the article below written for us by Corty Lawrence of Footloose Sports in Mammoth Lakes, CA. Not all the ski shops carry these boots yet.

More great news: we are updating, upgrading, improving and getting more professional with Peak Performance. We are still in the hands of my son Konrad Kosmala who is editing our publications. In addition to all this, we are launching our new Peak Performance website: www.peakperformance.highcountrywebsites.com.

Peak Performance
If you forget, you can Google it under “Peak Performance High Country.” Bill Delligatti is the website’s architect and will manage it on regular basis. As you probably already know, *Peak Performance* has a very special meaning to me. It got started almost 3 years ago, and each month it receives better circulation, traveling all over the world. But, our focus remains the same: it is designed for us, the instructors at Sugar Mountain, NC. Its purpose is to promote ski and snowboard instruction. *Peak Performance* has no higher authority that oversees it, but whatever is published is accurate to the best of our knowledge and always with the very best intentions. All the previous issues of *Peak Performance* are also posted and downloadable from my Appalachian State University web page found at

www.mathsci.appstate.edu/~wak/

Our next issue of *Peak Performance* will be the special December issue. Please, send all your correspondence to me at

kosmalaw@bellsouth.net

or through our new website. I know that it takes 4 things to be successful skiers/riders: good equipment, knowledge of technique, physical ability, and good mental outlook. But, we won’t be on the hill unless it is covered with snow. So, think cold and think snow! See you on the slopes very soon.

**Main Course**

**Fischer Vacuum Ski Boots**

*By Corty Lawrence*

*Co-owner of Footloose Sports in Mammoth Lakes, CA*

Many of us will see a lot of advertising devoted to the Fischer Vacuum ski boot. This is one new product that lives up to all the advertising and the hype.

The Fischer Vacuum boot is a completely custom molded ski boot shell...that's right, the shell with all the closures is molded to the feet.

I have been skiing on a pair of the Fischer Vacuum RC4 Pro 130's which were molded to my feet in January at the SIA convention in Denver. I cannot say with any certainty how many days I have on the Vacuum boots-I don't count the days I have on skis (there are never enough!)-but enough to report that they fit like a second skin and have since they were molded.

The molding process is remarkably simple and quick – really taking no more than an hour assuming that you don't have to have footbeds made.

Once the shell size and appropriate flex is determined the shells get heated for 12 minutes at 80 degrees Centigrade or 176 Fahrenheit. The feet and footbeds are placed in the liners then into each shell then buckled lightly. Cooling sleeves are wrapped around the shells along with a compression sock.

The skier is placed on a stand pre-set to the skier’s stance width and pre-determined forward lean. The compression socks are hooked up to an air hose and pumped up to any of several settings. Once the compression starts the feeling is very much like having a foam injected liner...tight but not as intense, even at the highest pressure setting which is 3 bars (1 bar=14.5+ lb.). The amount of pressure can be adjusted according to different requirements and/or preferences; if you are used to a full race fit the pressure can be intensified, if you desire a more relaxed fit it can be reduced. There are also ways to pad areas of the feet that are sensitive to pressure.
After the boots have cooled sufficiently they come off the feet and need a further 12 hours to "cure"-allowing the structure of the plastic to re-crytallize.

The next day expect a little discomfort- the liners need breaking in… the shells generally are perfect. If necessary the shells can be re-molded up to 5 times…though I can't fathom why one would have to do so.

Any sole planing and/or lifter installation should be done before the molding process.

Fischer claims that there are few limitations to the foot type that can be molded into the boots. We shall see.

Fischer is unique for another reason and a significant one it is; their boots are more abducted than any ski boots have been. In the context of Fischer ski boots abduction means "duck-footed". Since the days of hand lasting leather all ski boots have had a certain degree of abduction built into them; it was recognized long ago that humans for the most part stand and walk that way and therefore shoes and boots are made with that in mind.

Normal abduction in ski boots is 3 degrees – Fischer uses 7 degrees and their term for it is Soma Tec. The whole Fischer lineup is Soma Tec, all Fischer boots are abducted to the same degree.

The degree of abduction in Fischer ski boots affects the skier in several ways. The first is that turn initiation is very early and quick. Not a bad thing but for those with well ingrained muscle memory the timing of the movement patterns will take some adjustment.

Fischer’s original idea was to make ski boot shells that weren't as effected by temperature changes, as is the plastic commonly used. This was in response to elite racers who often dealt with large temperature disparities between runs in the morning and the afternoon. The Vacu Plast – a Fischer patent does address that issue to a large extent. As a byproduct it was discovered that one of the properties of Vacu Plast is its molding capability.

An additional benefit to the Vacu Plast is its lighter weight-immediately apparent when you pick the boots up. This makes for quicker edge-to-edge.

Fischer Vacuum ski boots come in two widths, the Vacuum RC4 Pro series starts out at a 91mm width, the Vacuum at 93mm. The Vacuum series also has replaceable toe and heel whereas the Pro doesn't. Don't let the numbers frighten you, there is a surprising amount of latitude through the molding process.

I think Fischer ski boots ski really well and reward current technique. Shaped skis work best when tipped up on edge-the higher the edge angle the better they work. This requires a wider stance and good lateral extension of the lower extremity to get the most out of current skis. The payoff is terrific and in my experience Fischer ski boots are a complement to the geometry and character of any of the skis we are skiing on today…narrow, wide, rockered…it does not matter.

**Peak Performance**
Focus on the Class

By Gordon Carr
PSIA-E Alpine, Level II

We are on the verge of another great season at Sugar Mountain! It has been a few articles and a lot of trail miles since I discussed several ideas about teaching skiing and riding. I thought I would summarize three previous articles as a reminder of general principles of snow sport class organization and instructor behavior. (It is also possible that I ran out of things to say; hence the repeat. Or you know old people tend to repeat themselves and tell the same stories over and over. Maybe this is one of those ‘overs’. Then again, maybe I’ve forgotten that I ever said this stuff…uh, what stuff?) The full articles appeared in February 2009 (the inaugural edition of the Peak Performance), “Plan to Have a Plan”; March 2009, “When ‘That’s Good Ain’t Good’”; and, November 2009 “Feedback: An Important Part of the Learning Tree”. All previous editions of the Peak Performance can be retrieved from Witold’s web page, www.mathsci.appstate.edu/~wak/. Hey, check out old issues…things relevant in 2009 and 2010 are still relevant and sometimes have a clearer impact upon second reading. Also, PSIA/AASI educational materials are incredible and exhaustive on these topics. The Core Concepts Manual covers aspects of snow sport instruction common to all disciplines, alpine, nordic, snowboard, adaptive, and kids. I strongly encourage all of us to have this manual as part of our “go to” library.

When we approach snow sport instruction, we need to have a plan, an organized mental structure through which to view our students’ and our own actions. We all have such a plan, perhaps not organized or consciously verbalized, but we all have a plan from which we approach teaching a class or individuals and through which we present the technical material to be learned. Watch any instructor’s behavior and listen to his words and you will find a constancy of approach across successive classes. That consistency is the instructor’s mental plan. There are multiple approaches to this subject, but I think if you tease out commonalities you’ll find all teaching plan structures have most of the following elements. I like and have used the following lesson plan outline because it is easy for me to remember and gives me a reference point from which to check if I have “covered all the bases”, INTRODUCTION, COACH, GUIDED PRACTICE, INDEPENDENT PRACTICE, ASSESS STUDENT PERFORMANCE, SUMMARIZE.

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Said in words:

INTRODUCTION: You need to meet the class, introduce yourself and the class to each other, and set the lesson tone by showing enthusiasm for them and about what they will learn today. Perhaps most importantly, you need to FORSHADOW the clinic; tell them what is going to happen and what is NOT going to happen. I always tell every Learn To… class, “Today you are going to learn to ski (ride). You are going to learn about the equipment, how to balance while gliding down the Magic Carpet trail, how to turn, how to stop 3 ways, and how to ride the lift, all of it right here on this trail.” (I mention specifically ‘this trail’ as over the years I have been impressed by how many Learn To… students come to the mountain thinking they will be going up on the mountain immediately. The foreshadowing takes away uncertainty by giving them a mental outline within which to learn and upon which to hang new material. It also takes away unnecessary fear and anxiety about going up on the big stuff, which becomes incredibly steeper in their perception the minute they click into the bindings the first time and realize the long board(s) is very slick on snow. During this initial contact, learn names and use them… it shows you care about them, personally. Many have said it, but it is true non-the-less: BEFORE YOUR STUDENTS CARE HOW MUCH YOU KNOW, THEY NEED TO KNOW HOW MUCH YOU CARE. Also, the first contact gives you an idea of athleticism in your class or private lesson. Yes, if it is a group of first timers, you kind of know what you will need to present and what their goals will be, but even here some will get the “dynamic balancing while moving” in this new environment more quickly. Tentatively identify those who may need more personalized help and attention. In a family group of mom, dad, and several kids, I will tell the dad for
sure, maybe the mom, that I will be focusing more on the children and not as much on him (them). I have never had such a family group where that isn’t what the parents really want. They want the kids to “get it” so they all can come back. Unhappy kids are not a pleasant sight when discussing the second winter snow sport trip at home! (Yeah, I know! This was a typically sexist stereotypic family where dad can ski/ride and mom is a shrinking violet. I’ve had family lessons where the kids and mom dragged a kicking and screaming dad to the lesson. You know what? Then I tell the kids and mom that I’ll focus on the dad because he needs most of the initial attention. Usually in this case, I give the kids tasks like doing 360’s down the trail to keep them challenged and Mom is warned to hide all giggles if she really wants this to work out.) And by the way, our Director, Len does an exceptional job separating out these kinds of mixed ability families into separate lessons so this scenario doesn’t happen often at Sugar Mountain. Believe me, that avoids a lot of headaches for us AND helps all our guests learn even more! Thanks, Len!

In advanced lessons this preliminary assessment of ability is more important so that you can pick the correct trail. Always better to err on the conservative side: remember challenge with technique challenges not terrain challenges! You can always ratchet down tasks, but sometimes you have no easier way down the mountain if you have over assessed your guest’s ability and wind up on the summit with only inappropriately difficult terrain available. Peter Howard, PSIA-E Alpine Education and Certification Chairman has a much more thorough and insightful article on this general topic in the Early Fall 2011 edition of the Snow Pro. Give that more than a second reading… it is the comprehensive final word on this subject.

A little hint from what I’ve observed over the years: women tend to UNDER-ESTIMATE their ability; men tend to OVER-ESTIMATE their ability (maybe a little macho thing going on?) Another hint, trust your own assessment of a child’s ability and past skiing experience when a parent tries to tell you what to teach their child and which trails to use at the beginning of a private lesson. Parents frequently want results for THEIR internal reasons and can be overly optimistic as to what truly is appropriate for their child on this day in these conditions. You are the Pro and you know our trails and conditions of the day; trust your evaluative assessment of the child’s ability and take a warm up run to validate your assessment. Yes, you want to work with, please the parents, and meet their expectations. We want happy parents, but more importantly we WANT SAFE, UNHURT CHILDREN!

COACH: This is where you present new movement patterns and skill tasks, the meat of the learning session to the group or private lesson. Based upon current skills what does this person(s) need to do to either solidify current skills or move up a notch in snow sport performance. This is the: here is what you do; this is how to do it; and (a sometimes omitted part) this is WHY you do it. Let me show you what it (the task or skill) looks like. This is your demo, your visual image for the student of what the skill movement, task or drill looks like when done successfully. At higher level classes you always want to make sure you really have down pat the skill movement or task which you want the students to perform. I can’t think of any circumstance where you would ask guests to perform a skiing (boarding) maneuver which you haven’t first mastered and can demo successfully.

GUIDED PRACTICE: Here is where they get to work, the DO, the experiential Learn by Moving for your class. There are lots of ways to structure this part of the lesson…call down…directed task…partner pairing, etc, but that is all for another time. PSIA/AASI manuals and technical journals have source material for those interested in more in-depth reading on this aspect of class management and it is all well worth study. You still guide the students with close monitoring and feedback about what and how they are doing. Stop incorrect movements immediately before they become bad habits. Much easier to learn correct skill movements than correct ingrained bad habits later!

INDEPENDENT PRACTICE: Here is the time to cut a little slack for the group. Generally structure the termination of the drill as to where to meet and what to do to get there, but let the students experiment and test their wings. Ski first down to the meeting point (demo’ing, yourself, the skill maneuver which is the topic of learning) and observe all the students to gain understanding of each’s accomplishment of the task. Once the students have the basic idea, they need multiple (300-600?) repetitions of muscle movements to “own” them.
Frequently we instructors feel the need to move on to “new” tasks too soon; we present new material before the class has really had time to get the first task down and even begin to take ownership of the maneuver. Give individualized feedback based upon your immediate observations. Remember, it is very difficult to observe and assess skiing movements of 7 or 8 people simultaneously! I have known only 2 instructors who could do 8. Also remember that we are much more important to our guests than we imagine. They notice EVERYTHING we do, so when we give feedback to only one person in a class, they will have questions in their mind about “why” you don’t give them feedback. “Is it because I am doing the task correctly?” “Does the instructor not like me?” “Am I so hopeless that I don’t deserve attention?” etc. I know from personal experience how devastating it can be when others in a group receive all the feedback and you are left “hanging”, but that’s just another sordid story out of my distant past.

Also, during all the practice time feedback should be very specific and given as soon as possible after the student completes a skiing element. It should be more than “This is what I see....” This descriptive statement can so easily become a negative comment about how things are going wrong... the people are learning new muscle movements, of course, they don’t do them perfectly at first. BETTER: “This is what I see....and this is what you might do to make performance better.” BEST: “This is what I see... this is what to do it better... this is how you do it.... and this is WHY we are doing this task, how by doing this particular skill in this way you will improve your on snow performance.”

And now you get my pet peeve: Never assign a ski or board task or drill and then give feedback about something else even if it is true! The task is e.g. making the skis match earlier in the turn in Wedge Christies, and then at the meeting place you give a student feedback about hand and pole position. Maybe the wild arm and pole waving IS interfering with the matching of skis. But, if so, perhaps make that a learning focus on the next run. The first way is a sucker punch. “We were working on getting down the hill with skis on the correct feet, but by the way, I observed that your head is screwed on backwards”.

**ASSESS:** This is the time during which you evaluate the progress people have made toward their desired goal. The assessment is ongoing throughout the lesson period so that you can make on the fly changes to the content of your lesson plan which hopefully is a dynamic, evolving one as you measure your coaching plan against the group’s accomplishment of the goals. Maybe you started at too basic a level... maybe you were to optimistic in the initial assessment and you need to ratchet down a notch or two. Of course with a Learn To... group it is the good ole, balance while moving, control speed, turn both ways, stop, and ride the lift. With more advanced guests in private lessons or more advanced groups the content of your plan will be more specific to the group or individual and should be jointly and cooperatively developed.

**SUMMARIZE:** This is the section where you repeat the goals worked toward and how this augments their skill set. It is always a good idea to get the group members’ assessment of how they think they did. If it is a higher level guest who developed goals interactively with you, you want them to tell you how much was accomplished. Not-with-standing the above, in all cases you will want to give classes feedback about readiness for next challenges in technique and skill sets. Here is a good time to get a plug in about “what you could help them accomplish” if they should choose to have another lesson with you.

Throughout the clinic distinguish, in your mind, “motivational High 5’s” from feedback. Feedback, to be effective, should be specific to the task assigned, detailed as to what muscle movements would improve performance, how to do those movements to affect snow tool performance, and why a person would want to do this particular skill set more effectively. If you have a class, and if it is appropriate to their performance level, have them ski down to you and stop close enough so that you can give each immediate feedback. You then don’t have to remember 10 or 12 people’s performance and stand around giving a litany of feedback in front of all. Also, all too often forgotten, watching others in your class (if you are the class member) is not wasted downtime. Much can be gained watching others perform tasks under development. Just remember that beginning skiers/riders will benefit more from observing others if you call their attention specifically as to what to watch for. Motivational High 5’s are great and even necessary to keep the gang pumped up and to show that you recognize what a special day this is for guests beginning their journey into our unbelievable winter wonderland.
The first successful trip from the top of the Magic Carpet trail to the lift line is, for our learning guests, a successful milestone, which deserves celebration with them. Just remember that the hoopla, cake, and champagne in the lift line when the group all gets there is not, by itself, effective and sufficient feedback.

Anyway, I’m preaching to the choir; but I did think it might be helpful just to review a couple of concepts about teaching snow sport lessons. However, you guys and gals in the Sugar Mountain Ski and Snowboard School really do provide high quality ski and board clinics. All I’ve ever seen in my brief time as your colleague are classes and private lesson guests in your lessons with a bunch of smiles on their faces. And that’s as it should be. Let’s all have a terrific and safe 2011-12 season!

Magical Feet

By Justin Grimes
Ski Instructor

Describing the marvelous human foot and how its movements relate to skiing can easily become complicated, so I’m going to use an analogy instead.

Imagine that your brain is the hard drive of the computer and your feet are equipped with the latest software packages and plug-ins sending thousands of signals far faster than the click of a speeding mouse.

If we are going to stay balanced over the platform as the infamous Weems Westfeldt of Aspen coaches, our browsers had best be open to our feet. By understanding and effectively using foot and ankle movements, our skiing accuracy and balance will improve.

So let’s have some fun waking up our latent memory and tuning up our feet.

Before we start the following simple exercises, drills, we must first find a state of relaxation. Most of you as athletes probably already have a routine, use it and relax.

Now, let’s begin, barefooted:

1. Jump up and land, most people will land in their natural balanced position, adjust your feet to parallel if needed
2. Pretend that you feet are the runners for a rocking chair: rock up onto the toes and back on the heels, concentrate on the feedback your feet give you, feel those stretches...
3. Take a deep breath and exhale slowly, check your feet, make sure they are parallel and you are in a balanced position facing forward; pull the tummy in, relax the shoulders and let your head float upwards until your posture is the best it can be; let’s call this position neutral from now on.
4. Now for the fun, simply turn your head left looking at your left shoulder, do nothing more, be still. Did you feel it? Did your latent ski file open up?
5. Return to neutral, repeat: turn your head to the left looking at your left shoulder. What happened in your feet? Your center of mass shifted ever so slightly when you looked left and proprioceptors in your feet subliminally reacted.

Proprioceptor: a sensory receptor, found chiefly in muscles, tendons, joints, and the inner ear, that detects the motion or position of the body or a limb by responding to stimuli arising within the organism. The feet have thousands.

You do recognize the movements and the resulting position by now don’t you. You can feel the gentle pressure on the outside ‘edge’ of your left foot and the pressure on the inside ‘edge’ of your right foot.

Are you skiing yet? Repeat to the right and tune up those proprioceptors. Repeat often...

6. Relax, turn your head to the left, hold the position and look down: your left leg has rotated out (external

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leg rotation) and your weight will be on the outside of your left foot. Your left foot is supinated. Your right leg has rotated in (internal leg rotation) and your weight is on the inside of your right foot. Your right foot is pronated. It’s magic.

How many times have you heard an experienced ski instructor say to a beginning student, “Look where you want to go and you will go there?” Now that your latent memory is refreshed, you should recall the dynamics at play and why many people—children especially, plus those older beginners who have backgrounds that have enhanced their balance like gymnasts and ballet dancers—respond to the simple request of, “follow me.”

**Note, if the simple turning of the head movement doesn’t work for you, add turning your torso a little, too.**

1. More fun…if you have a swivel office chair, sit down; if not, any seat will do that provides a perpendicular angle at the knees, relax.
2. With your feet parallel and flush to the floor, press on the little pinky of the left foot; observe as in the first exercise what happens. Did you left knee move out and the chair swivel? Probably, not much… Repeat to the right…

Back to your neutral sitting position; this time gently lift the big toe and ball of your left foot. What happens, did your left knee move out more and your chair swivel to the left a little? Play around by altering the amount of lift you apply. Think on the similarity, yet difference, between pressing the pinky and lifting the big toe and ball. How will each move impact your platform?

These two are old favorites: get a piece of cardboard large enough to extend beyond each foot six inches, stand on it and do the twist. And while sitting, play the piano with your toes, pressing down hard…pressing slightly, then lifting your toes as much as you can and slamming down a powerful cord.

One more exercise, this one takes super concentration: in your neutral sitting position with your feet flush to the floor, visualize your ankles simultaneously writing the alphabet in cursive.

When the snow flies, find a gentle slope and repeat the exercises. How do your skis respond with each movement? Can you isolate which muscles or muscle groups throughout the body get engaged from a simple movement of a foot?

When it’s safe, I’ve heard of skiers closing their eyes to heighten the feeling of contact with the snow.

We will be dancing downhill soon, in the meantime remember: tuned proprioceptors lead to balanced and efficient skiing.
Ski Tips

If your student has hard time putting on their skis:

- Make sure their rear ski binding is ready for mounting the boot, it might need to be cocked.
- Make sure the binding has proper length. Sometimes adjustable binding will move to an incorrect position.
- Make sure there is no snow or ice stuck to the bottom of the guest’s ski boot.
- Put the skis across the slope.
- Mount the downhill ski first. First, make sure that it is relatively flat. They may wish to use poles for support.

If your student cannot push forward with their poles strongly enough on a flat ground:

- Have them put the top of their poles in the palm of their hands.
- Have them place baskets of their poles in the snow further back than their ski boots are.

This and That

DID YOU KNOW?

By John Cossaboom
PSIA Alpine Level III
Director, Gatlinburg Snowsports Center
PSIA-E Education Staff Member

One of the more unusual member schools in Region 7 is the Gatlinburg Snowsports Center, based at Ober Gatlinburg Resort in Tennessee. When PSIA first started and the divisions were created, Tennessee was placed in the Central Division. Being so far from all of Central’s activities meant that Ober’s instructors received very little support. In the mid-80’s, these instructors petitioned the Eastern Division to become members and, through a cooperative agreement with both the Central Division and the PSIA National office, were granted permission to do so. This agreement was re-confirmed in the summer of 2010.

TAKE IT FROM JOHN!

Here are some of the points that have helped me during my ski instructor career

- Take clinics from PSIA and ski with Ski School trainers.
- Stay in shape, exercise, read PSIA manuals. They have many good ones.
- Look the part. Dress well in your uniform when giving a lesson, and look well groomed.
- Always be pleasant to your students.
- Have a good explanation of your lesson plan. Do a lot of demonstrations. But, the most important part of the lesson is picking the correct choice of terrain.

Over the years I have followed these points, and have been very successful in my ski-teaching career. I am still skiing and teaching at a mature age, and my hope is to continue for many years to come. By the way, I have been teaching since 1960.

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My background before coming to Sugar Mtn. entails being certified by the Canadian Ski Instructors Alliance and PSIA-E Alpine Level II. I have been a ski instructor at Windham, NY and a Ski School Director at Royal Mtn. (Johnstown, NY), Drumlins Ski Area (Syracuse, NY), and Labrador Mtn. (Truxton, NY.)

By John Gaida

INTERVAL TRAINING

Interval training is when a person alternates a very intense activity (during which heartbeat sky-rockets) with rest or period of low intensity. There are huge benefits to exercise, period. But, if an interval training is implemented in your exercise, then the benefits can be that much greater. Here is a partial list of those additional benefits over a regular traditional exercise where the heartbeat stays at a constant rate:

- Interval training trains the body to be more productive and increases the endurance by improving mitochondria, where body fuel is turned to energy.
- Interval training will push your lungs to their limit much more so than regular steady exercise. This will make your lungs larger and more efficient.
- Interval training will increase good cholesterol.
- Interval training will lower risk of heart disease and help with diabetes.
- Interval training will clear the bloodstream and help with dangers of artery-clogging. It will drastically improve your cardiovascular health.
- Since interval training puts a large amount of stress on your body, your body will learn how to deal with exercise related stress as well as the normal day-to-day stress.
- Interval training will help you rest better at night and keep trim.

So, what does interval training have to do with skiing? The interval training improves skier’s performance during the spurs of sudden use of energy during which exercised heart should not increase its beat. Here we are talking about skier’s reactions to sudden pressure increase in each turn as navigating down the hill. If those pressures change slowly or are not big enough, skier’s dynamics are very low.

By Witold Kosmala

BIKE TRAINING FOR SKIING

Biking is super for cross-training and for off season training for skiing and riding. It provides great exercise for your legs, core and heart. Also it will improve your respiratory system, lower your resting heartbeat while being gentle on your knees, (unless you use too high of a gear when riding.) You can make your workout as intense as you wish, not like running where your body weight dictates certain constraints.

Here, in the mountains of North Carolina, biking provides an automatic interval training since there are practically no flat roads. Interval training, with surges of energy, will make you a powerful skier/rider. Every uphill is your “interval” workout. Raise your heartbeat to your maximum level (age dependent) and reap all the benefits. (For most ladies the maximum pulse should be 226 – (the age), and for men should be on the average 220 – (the age). For example, a 50-year-old man’s maximum heartbeat should be on the average 220 – 50 = 170.)

Besides, biking burns more calories than many other forms of exercise because it involves big muscle groups – core and legs. (Arms, shoulders and neck are also exercised, but not as much as core and legs.) So, not only you will trim out your body when biking, you will loose unwanted weight. That will make you stronger and your riding will become even more fun.

However, certain technique of pedaling is of vital importance, otherwise, you will develop your quads and calves more than hamstrings and shins. This imbalance of strength will dramatically affect your stance and overall performance on the snow. For proper pedaling technique you will need shoes with cleats, or at least toe clips on
your pedals. You need to spin your pedals at about 80 revolutions per minute (if too fast then not enough resistance resulting in reduced exercise) and you need to put pressure on the pedal as it goes all the way around. Pushing down everyone knows about, but as the pedal gets close to the bottom, you need to pull it back, and then up. When it is close to the top you need to push it forward before you step on it. It takes practice. Try thinking about one leg at a time while the other just goes around on its own. You can also practice just pulling back one foot at a time. Just think: back, back, back, etc. Or, just think about pulling each foot up. Just: up, up, up, etc. Just the “up” movements are more difficult when stepping (that is, not sitting on the saddle), but working against resistance should be done whether sitting or stepping. Just think how fast you can go up the hill when thinking about your pedaling (or skiing) technique. Also, remember that ankles will be exercised if the proper pedaling technique is used.

More, you can bike on the roads, trails, or on a trainer in your house or a gym. It can be done whatever the weather is like outside. Any bike can be used, just as long as you can luck your feet into the pedals. In fact, more rusty the chain, faster the heartbeat goes up. Like skiing and riding, biking will never get boring. So, what are you waiting for? Let’s go!

By Witold Kosmala

Bicycles are as devoted to their masters as the dogs are. When left alone, they simply die.

SWIMMING FOR SKIING

There is no substitute for swimming when talking about a full body toning. It can be a life-long experience. Here is a partial list of what swimming can do, or not do, for you.

- Swimming will build coordination and provide you with a great aerobic workout.
- Swimming can develop general strength, cardiovascular fitness and endurance. Super for lung workout.
- It will not bulk up your muscles.
- It involves a very large number of muscles, so it is excellent for toning.
- It does not burn as many calories as biking or running since it does not involve as much resistance on the large muscle groups. So, to burn more calories and to improve your strokes insist that your leg movements are initiated in your core, and keep those legs moving.
- When your stroke is good, it will be very efficient, just like when you ski using proper stance. When this happens you will need to swim more laps to benefit enough from your exercise. But, that’s OK because your laps will go by faster and you will enjoy yourself more.
- You can make interval training out of your swim practice, and it can be as demanding as you wish it to be.
- Swimming will greatly improve your balance and agility.
- As your arms and hands pass through the water pay close attention as to what happens to your body when fingers’ angle is changed. It is the same as when you stick your arm out the driving car’s window. Point your fingers into the wind and note what happens when you vary the direction where your fingers point. Can you relate that to skiing? Sometimes this angle is called a steering angle of the skis.
- Swimming is great for rehabilitation.
- It helps to make your breathing more rhythmic.
- Swimming will show you that some mistakes in life can be very serious – you MUST breathe above water.
• You can do all sorts of exercises in the water besides actual swimming. The water will keep you cool and you don’t get as hot and sweaty as in the corresponding out-of-water exercise. There is a danger to this – dehydration. So, don’t forget to bring your water bottle to the pool’s edge.

• You can use pull-buoy, kick boards, wrist paddles, fins, and other “toys” to put variety into your swimming. Count your strokes, measure the time, think about how much less guilty you will be eating a snack after your swim is over, and think about snow and skiing/riding in order to make your water training even more fun.

• Swimming will not do anything for your bone density for which you will need weight-bearing exercises.

• Swimming is a low-impact form of exercise. It is good to your joints. Great for hurting knees and ankles. There is no pounding in the water. Your weight does not dictate the intensity of impact in your workout, like it does in running.

• If you swim in an outdoor pool, sun will turn your hair yellow (or greenish), but will provide you with some vitamin D. The sun will tan you through your bathing suit leaving designs on your body. But, too much sun will make your body stay wrinkled and may cause skin cancer.

• While you swim you are away from your pantry and refrigerator, so you are not snacking.

• Moist air around the pool is good for asthma sufferers.

Now that you see how wonderful swimming can be, try to put it into your regular schedule. Just don’t take the time out of your hill time for swimming. There is nothing that replaces sliding.

By Witold Kosmala

MORE ON POLE USAGE

In the last issue of Peak Performance we listed all sorts of ways one can use poles when on the slopes. Here are a few more.

• “Serves the important mechanical purpose of slowing the lateral movement of the center of mass in the transition in certain situations.” (Submitted by Ron LeMaster, author of a well-known book titled Ultimate Skiing. See www.ronlemaster.com.)

• For building a recovery sled (submitted by Scott Squires, K2 Ski and Snowboard Sales for Southeastern and Mid-Atlantic US.)

• For measuring the snow depth (K2 poles have the length markings)

• For measuring the pitch of a slope (K2 poles have a gage)

• Poles can provide a probe (K2 poles can be screwed together)

• For adjusting the boot heel lifts (K2 poles have a handy notch)

• For unbucksing boots (K2 poles have a handy notch)

• For use as a monopod for a camera (K2 poles have a place where you can attach a camera)

• For picking up trash

• For skier getting confused and mixed up

Of course, if you think that poles do not make your skiing easier, try taking a few runs without them, especially on a steeper terrain. Enough said.

PSIA UPDATE

It is my privilege to inform you that years of negotiation have come to fruition as we announce receipt of a $200,000 grant to the PSIA-AASI Education Foundation. While we’ve know this grant has been a distinct possibility, we can now officially announce it because letters of agreement have been signed with the grantors.


The grant specifically targets education programs and development, enabled the board to reduce the amount of
the original dues increase, and improves PSIA-AASI’s financial position in FY12.
More specifically, the grant will underwrite activities related to the SEP, providing resources to 501 (c) 3 adaptive programs and their volunteers, content upgrades for the matrix, association consumer promotions, and more. 100% of the grant goes to EF programs. We intend to pursue this funding source in future years in order to improve service to members and other stakeholders. This grant represents unprecedented support for the PSIA-AASI EF.

On another note, several division leaders expressed concern about the costs of the surveys we are conducting. The grant, plus the promise of two additional gifts expected before year-end, will cover 100% of the project cost.

Thank you for your leadership, vision, and support as we’ve worked through this process. Please contact me directly if I can clarify anything.

Best regards,

Mark

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Turn to Wisdom

LIFE IS:

• Life is like photography. We develop from negatives. (This is an old method.)
• Life is like a game of basketball. It can’t be played alone.
• Life is like a box of chocolates. You never know what you’re gonna get.
• Life is like a coin. You can spend it any way you wish, but you only spend it once.
• Life is like being a butterfly. You don't know where you'll fly to.
• Life is like an ice-cream cone. Enjoy it before it melts.
• Life is like an apple. You gradually take bites and eventually, you get to the core.

Thoughts for the Month

• Can you name some sports or activities which require sudden spurts of energy, explosive moves, alternated with movements of drastically lesser intensity?
• What is the mission of Sugar Mountain?
• Sometimes you look down from a chair lift and you see nice skier tracks on the snow, but they get narrower in the transition. Can you tell what the skier was doing?
• Should we teach beginners a narrow wedge or a breaking wedge? Besides, what is meant by a “breaking” wedge?

Peak Performance
• **How good is your eye?** I just finished skiing down a slope at Mammoth Mtn., I stopped and my brother Andrzej took this photo. Can you tell what kind of slope I just got off of? How can you tell?

Elaborations on last month’s **Thoughts for the Month**.

**What can skiers learn from a cat?**

Answer. Try agility for one. How about fearlessness of heights? What about disobeying even if someone calls STOP and running away from the whistles? Enjoying life to its fullest? Cats jump without thinking how they will land, and too many skiers do the same. Cats anticipate and play with open mouths ready to nibble. We skiers also need to anticipate and be ready. What about skiing steeps? Don’t you take a leap with your upper body much before your (back) legs move? That’s how a cat jumps. There is more. Cats have unbelievable balance and 9 lives. Some of snow sports participants unfortunately think they do too. What about curiosity? Yes, cats have that, and it kills them; or at least one of their lives. Now think, how often do we follow tracks on the snow just to see where they go? How many of us get between the trees without knowing whether there is an outlet or not? How about other places that lead to cliffs and so on, where we realize that curiosity can kill? (So, now I have an opportunity to show off our new addition to the family. Meet Mr. Barnabus,— meaning, an encourager – a cat found in a gutter, now 4 and a half months old.)
Announcements

• PSIA/AASI Calendar of Events is out. Make your plans for attending an event or a certification exam. Put those dates into your calendar and plan out your preparation schedule. There is a lot of information on PSIA website, including discounts on Subaru vehicles. Check out www.psia-e.org.

Subaru snow car. I wonder what sort of discounts you can get on one of these through PSIA. Does it get good mileage? Is it time for winter yet? I can’t wait!

Excellent workout schedule can be found on:


There is a menu on the left side with all sorts of details.

• Plan on the Consumer Demo at Sugar on the beginning of December. What a great way to try new skis and boards.
• Don’t forget to sleep longer on Sunday, November 6. This is when the daylight saving time ends.
• Greetings to all the instructors from Chelley and Ben Macon! They were members of our Ski/Snowboard School 9 or 10 years ago. Here is a photo to help you recognize them.

This photo was taken last month. Ben and Chelley with their son Landon are on the right. I am with my son Henryk on the left.
Funny Turn

YOU KNOW YOU'RE A SKI OR BOARD INSTRUCTOR WHEN...

- when it takes you less time to wax and scrape your skis in the morning than it does for you to brush your teeth and have a shave.
- when its a shock, come summertime, to find that there are no lifts to carry you to the top of a street, hill or set of stairs, and that you will actually have to get up there using your own muscles... when you ski backwards given any opportunity, no matter how unnecessary.
- when the combined value of your gear in your vehicle when moving for the new season more then doubles the value of the vehicle.
- when you see cheap gloves at the supermarket and cringe... because you KNOW someone is going to show up wearing them and complaining that its cold.
- when you choose a car considering the trunk size, for your gear.
- when it's tough to find in your drawer a t-shirt without a ski resort logo on it.
- you love kids that have ice skated before, and show off how far you progressed your beginner to all the other instructors.

Mike Hicks, thank you for amusing us with these statements. We can all relate to them. Mike was a ski instructor at Whitetail Resort, PA now for 20 years and going strong. He is an awesome skier and a wonderful person. Mike is a PSIA Alpine, Level III certified trainer for his ski school.

SOMETHING TO ENTERTAIN YOU

This has nothing to do with skiing, but none-the-less a funny and rare event. Some years ago I had a small pick-up truck. I went to a hardware store and they helped me load up bunch of long pieces of wood onto the truck’s bed. They were sticking out in the back pretty long ways, but a little red flag they nailed to the wood was to make it all good – well, not really. Read on.

On the way home a funny (???) incident occurred. The hood of the truck and the lights started to point to the road and I started to look at the road right in front of the truck instead of a ways down. I also noticed that the wood slid out of the back and was all over the road. Since it was dark, I pulled right over and ran back to move the wood off the road while other cars hit it. When I returned to my truck I noticed that the bed of the truck was sloping down to the road. In fact, my truck broke in half. The middle went up and the front and back went down, with lights shining at about 30 degrees down onto the road.

No one could weld this truck’s frame together since it was so badly rusted. In fact, one mechanic told me that if I keep driving this vehicle, the front 2 wheels will separate from the rear ones. That reminded me of VW Kirby on that movie Love Bug.

By Witold Kosmala

Marketplace

- For sale: Roxy snowboard with K2 bindings, length: 156, model: Sugar. Asking $150. For more information call Katie at 404-295-6706.
- If you are working with kids, or you simply need to get in and out of your ski boots fast, and you want them to be comfortable and of top quality, you might be interested in my NEW rear-entry Nordica Gransport Executive Ski Boots in size 28.5 with 95 flex index. Asking $249. Write me at kosmalaw@bellsouth.net or call at 828-719-6884.