



TRACK COACH

2023 / ISSUE 242

*Brad Walker
2022 Nike Coach of the Year*



TRACK COACH

Winter 2023 — 242



The official technical
publication of
USA Track & Field

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TRACK COACH

FORMERLY TRACK TECHNIQUE

242 — WINTER 2023



USATF

The official technical
publication of
USA Track & Field

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PUBLICATION

Track Coach is published quarterly by
Track & Field News,
2570 W. El Camino Real, #220,
Mountain View, CA 94040 USA.

Spring 2023 issue (No. 243)
e-mailed to subscribers
in April 2023.

SUBSCRIPTIONS

\$19.95 per year, U.S. or foreign.
Track Coach became a digital-only
publication in 2015. Track & Field News
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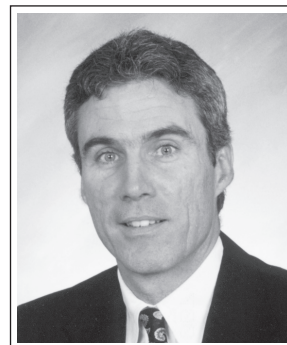
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FROM THE EDITOR

RUSS EBBETS



THE POWER OF TRADITION

When I was a sophomore in college I was asked to run at a meet in South Jersey. It was early November and it was an "indoor meet" to be held on an outdoor track. Not many colleges were there. It was a cold, windy 40-degree day and the kind of excitement I'd feel at the Millrose Games was not present.

They called the 600-yard competitors to the line and we reported to a tape mark on the track. Notice I said "we." Actually, it was me and one other guy. When I took off my sweat top and he saw the Villanova singlet he did a double take. He stopped all movement and then asked the obvious question.

I could see his visage change when he got his answer. He actually toed the line in his sweatpants. The starter asked him if he was going to race in his sweats? He looked at his legs embarrassed that he'd somehow forgotten this detail. His hands were shaking so bad he had trouble getting the sweats off.

With the gun shot he was off like a bullet. I followed and followed and never got to the front. Now, I'm embarrassed to say he beat me by a step. I guess there is something to the adrenaline of terror.

Six weeks later I ran into this guy at a December all-comers meet at the old, flat floor Armory in New York City. Confident and cocky he was ready for great things that night. He never made it out of the heats. I did and got fourth overall. Glory days.

With my distance runners I always wanted them to finish with a strong kick. I'm sure that is every coach's dream, but we practiced this with sprint work technique, timing and avoided "training to failure" in practice. The runners were also taught to "ease in" if there was no need to kick, and to "save it" for when it was needed.

That speaks to a coach's expectations. Set the bar high and you get what you get. If mediocrity knows nothing higher than itself, I always championed the exceptional.

When the team bought in something special happened. The team's level of expectations rose as did their expectations of each other. In this positive Gestalt it became an uplifting, unstoppable force within the team. No one wanted to let anyone down. Together we

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EDITORIAL COLUMN

Continued from page 7688

became, “together we will.”

This level of expectations can affect one's opponents too. If one's reputation precedes in terms of ability (or ability to kick, for example) some competitors may decide to “call it in” and rationalize the loss. One can use history, hearsay or personal experience to develop a defeatist mindset that can rationalize anything.

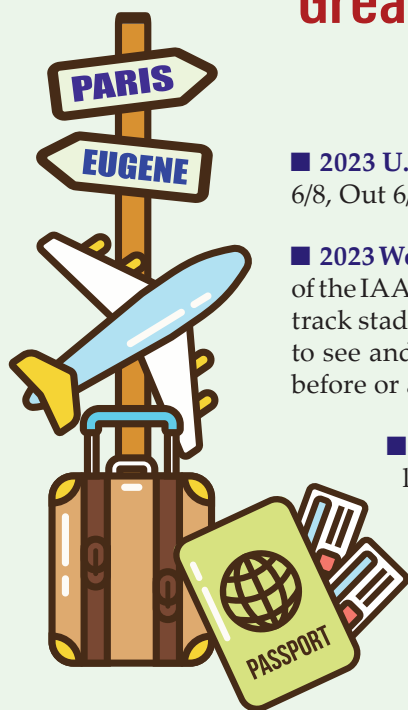
Chip Button's interview is in this issue. On November 12, 2022 his team won another NYS Class B Championship in cross country. Eleven and counting.

His top returning runner from last year struggled as a sickly #5 man all season. His #2 sprained an ankle with a week to go before the championship. Fear, doubt, or a loss of resolve could have had his team “call it in” and rationalize the season as one of “bad breaks” and not meant to be or that this team “just didn't have it.”

But if there is the level of expectation driven by tradition, a long line of success from coach to team to individual athletes this belief can dictate, even mandate that the glass is half full. Personal struggles pale in comparison to the forge-ahead resolve of the team. It is a terrible feeling to let someone down. And then there is the competition. They know the tradition, they see the resolve in their competitors' eyes and they remember what they have been told. What they expect to happen, they let happen. You don't want to let those people down either.

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“THERE’S NOTHING SPECIAL HERE.”

This is the interview with prep coach Chip Button promised last issue. Button coaches at a medium-sized high school in New York state. Button's teams over the years have won 14 NY state cross country championships and 34 Class B sectional titles. Button told Russ Ebbets “there’s nothing special here.” Read the interview and see if you agree.

BY RUSS EBBETS

How did you get started in coaching?

I began coaching as an Indoor track assistant at Monticello (NY) HS when I got my first teaching job. I assisted Coach Ken Garry for six years of indoor and outdoor track before I moved on to Burnt Hills – Ballston Lake HS. I was asked to coach the indoor track distance runners by Coach Dick Stevens on my arrival. After three years here, in 1991, I became the cross country coach for both the boys’ and girls’ teams. The two teams were split in the fall of 1997 when a girls’ coaching position was created. In 1996, I became the head indoor track coach and in 2003, I became the

head outdoor track coach.

Could you describe your school size, typical team size and the competition format of your league, sectional, and state competitions.

Burnt Hills – Ballston Lake HS is a medium-sized school that has gotten progressively smaller over the past 30 years. We are currently at just under 700 students for grades 10-12. In the mid-90s, we had as many as 45 runners. Since 2000, we’ve averaged in the mid-30s. In the last two years with Covid, our numbers have been down to the low 20s. We compete in NYS Section 2 and we’re a member

of the Suburban Council where we’re one of the smaller schools. In the Suburban Council, our dual meet schedule consists of five meets, where we run against the other fifteen schools. The Suburban Council X-C Championships are run in late October with races for all levels – Modified, Freshman, JV, and Varsity. For Sectionals and State competition in cross country, we’ve been a Class B team for the last 24 years.

What was your personal competitive background? How much of that coaching and training influence has remained with you?

I started running track in high school

at Burnt Hills as a sophomore and then ran two years of cross country. I ran cross country and track for all four of my years at Geneseo in the early '70s. After very little running after college, I got back into it in the early '80s with some racing on the roads and eventually track at the Colonie Summer meets. That led to running at the Empire State Games, mostly as a sub-master. At age 37, with the 1990 Empire State Games being held in Syracuse, I qualified for the Open 5000m and ran 15:33, finishing 7th.

My most competitive years, and best years, where I set all my PRs, were in my late 30s - indoor track, outdoor track, and on the roads. I never had a coach beyond college but for a time I did a workout once

a week with a Saratoga Stryders group which was coached by Rich Jones, a Saratoga podiatrist. His workouts, which were largely based on Jack Daniels, had a pronounced effect on my coaching. They become the basis for much of what we did workout-wise in our early years, some of which are still part of our training today. Additionally, progression runs were my favorite type of distance runs when I was training and were particularly effective for racing at longer distances (15k, 10k, half-marathons). I've managed to work modified progression runs into our current training.

Your career spans four decades, several of them pre-internet. Who were your early coaching influences?

I spent nine years as an assistant under two great coaches – Ken Garry at Monticello and Dick Stevens at Burnt Hills. Working with them really helped provide me with a blueprint on how to run a program. Ken was amazing. For indoors and outdoors, he wrote the daily workout for each group and then between him, me, and the other assistant, we would implement them. He knew every event from the sprints, distance, jumps, throws, and even the walk. Dick had over 20 years of experience when I got to Burnt Hills and had worked with many great athletes, including coaching Miles Irish. When I began, he gave me a comprehensive list of distance workouts that he had developed. I used them for my first three years of coaching the indoor track distance runners. I should also mention my cross country coach at Geneseo, Coach Martin Kentner. He was definitely old-school but his emphasis on being positive, I believe, had a lasting impact on anyone who ran for him. His favorite phrase was PMA – Positive Mental Attitude. I've tried to make that a cornerstone of our program.

HIS FAVORITE PHRASE WAS PMA – POSITIVE MENTAL ATTITUDE. I'VE TRIED TO MAKE THAT A CORNERSTONE OF OUR PROGRAM.

How much has your approach to coaching changed over the last 20 years?

I don't believe that my approach to coaching has changed much over the last 20 years or even over the past 30 years, but I do think that I've become a much better coach.



Chip Button

I think that in my first ten years, I was more focused on our first group and making things happen, stressing what needs to be done to win. At some point, after ten years or so, we had what you could call our “culture” established; there hasn’t been as much of a need for that with the expectations for each season having been set. Once I slowed down as a runner, I wasn’t running with the first group as much, and I think that it’s made me a much better coach by having greater contact with every athlete on the team, gaining a better understanding of what they each need to do individually, to improve as runners. That’s led to stronger, more cohesive teams.

With the advent of the Internet there has been a proliferation of coaching related information – any sites you find particularly useful?

Not really. In the ‘90s, I subscribed to Running Research News which I found very helpful in thinking about training and creating effective workouts based on their research and findings. I’ve also subscribed to Track Coach for over 30 years which I’ve found very helpful, both for distance training, and for their track and field-specific articles. Of course, the Internet has been particularly useful in helping with scouting other teams and individuals. Tully Runners has been invaluable along with both Milesplit and Dyestat.

Year in and year out you have had successful cross country programs. What type of development programs does your school have?

We’ve had a modified cross country team since 2017, except for

2020, when the Suburban Council did not offer modified sports due to Covid. Prior to 2017, middle school students wanting to run cross country had to be selectively classified to participate but it became more difficult with the NYS Athletic Placement Process which was scaring away potential runners from even signing up to take the test. Our teams the last few years have benefited greatly from having a modified program. This past year, we had our smallest team ever, with just 21 runners. Fortunately, we had 14 boys on our modified team. That should pay dividends in the coming years.

Do you strive for progressive development of an athlete? What are your expectations for junior high, frosh, JV, and varsity competitors in terms of weekly load, summer prep and racing schedule?

The development of each athlete should be the priority of every program if they expect to be consistently competitive, and it certainly is with ours. It is the foundation that makes replacing graduating seniors each year possible. I’ve always felt that running is developmental but also is individual to each athlete. The great thing about distance running is that everyone is able to improve.

The initial starting point for each athlete is of course different but the process for improving oneself as runner is the same. It’s important that the athlete is made aware of what’s required to improve. Having veteran athletes who serve as role models for beginning runners is invaluable. Our process in developing runners has worked very well over many years and that helps give the athlete the confidence, knowing that if they put the consistent hard

work and effort into their training, that they can one day be a Varsity runner. For our team, Middle School and Freshman athletes have been an integral part of the team. While their mileage is less, their workouts are structured similar to those of the Varsity/JV runners. Generally, the distances that comprise their workouts are shorter with fewer repetitions.

It’s important that while their workouts are challenging, that the athlete is able to be successful at them. Their distance runs are at whatever pace they want. They should enjoy them. The one thing that is consistent between groups is that everyone takes the training serious, with a commitment to improving and getting faster. For the freshman, the number of races that they run is dependent on whether they have demonstrated the ability to race at a distance of three miles, which would allow them to race at those Invitationals which don’t have a Freshman race. The top Varsity guys race the most, with the addition of the championship races at the end of the season.

HAVING VETERAN ATHLETES WHO SERVE AS ROLE MODELS FOR BEGINNING RUNNERS IS INVALUABLE.

Do you have general goals, in a broader sense (things like team orientation, citizenship, maturity, selflessness, mentoring, personal discipline, etc.) for each level of your program? What is the first skill or behavior you like to see a newbie exhibit? What is a behavior you hope to see in one of your graduating seniors?

I wouldn't call them goals, but I do have expectations both for the team and for each athlete. My background as a teacher was in special education. For all my years at Burnt Hills, I had what was basically a self-contained class of 9th and 10th graders. I've come to realize that this has had a pronounced effect on my coaching, how I view coaching. Specifically, viewing each athlete as an individual and working with them as such. Just as each athlete has their own starting point from a physical standpoint, so to do they have their individual starting point in terms of maturity, personal responsibility, and communicating with me. To me, the primary expectation that I have for any athlete is having the ability to communicate with me. It starts with letting me know about anything involving practices, meets, and extends to injuries. Communication is the basis of our coaching/athlete relationship. Early on, some of this communication for a few athletes, might be handled by a parent but ultimately it needs to be assumed by the athlete. Initially, those expectations are delivered to the entire team but the task of working on those expectations for the athletes who need it done individually in a positive way. When a new athlete, such as a Middle School student, feels comfortable enough to talk to me, leave a message, or even email me, that speaks volumes for that athlete. I think that's the one behavior that I would hope to see in a senior athlete, is that they all are looking forward to helping their younger teammates in any way that they're able to.

What type of summer prep do you recommend for the different levels? What are the consequences if somebody skips out on this preparation?

Our summer program has been going on for the last 20 or so years. Prior to that it was up to athlete to continue running on their own during the summer and it was hit or miss. At the end of each June we meet and I go over what they should work on during July and August, leading up to the official first day of practice. The practices are organized by the veteran runners and involve mostly distance. The routine has become pretty much set by our previous generations – Monday / Friday from the High School – Tuesday / Wednesday / Thursday from a nearby park.

Attendance has been very good among the more serious runners, Freshman through Seniors, and more recently a few Middle School athletes. Weekly updates on how the week went, along with who attended, are provided to me by one of the veteran runners. For over 30 years, we've had a group of runners attend a running camp in August, the week before the season starts. For the last 20 years, we've gone to Foss Running Camp in New Hampshire. That has helped serve as an additional motivation for athletes to stay in running shape over the summer so that they're ready to go when they get there, and then return to begin our serious training. It also brings the guys together and helps carrying on; camp rituals have been ongoing for many years.

Do you chart volume in miles or minutes per week? How are things different between the boys' and girls' programs?

In terms of our distance runs, we run for minutes but then I convert them to miles for my tracking how much we're running per week. Generally, we average in the low

50s throughout most of the season. Over the last few weeks with our championships races, it drops to the low 40s. While I did coach both the boys' and girls' teams in the mid-90's, once a girls' head coach position was created for the girls' team, I've been unaware of their weekly mileage.

Do you divide the season into different parts with a different emphasis?

I don't. I see each season as more of a continuum. We start with a series of longer workouts in the first few weeks of the season and then they're repeated through the middle part of the season, when they can be fit in, and then later when the dual meet part of our season ends, which allows for more time to train and recover, with meets only on weekends. With our season extending into late November, or even early December, we repeat some of our longer workouts into early November. Once we reach the championships, workouts do change, generally shorter and faster, but exactly how they change is dependent of the team and our outlook for the approaching races.

Leadership on a team is critical. What is your leadership structure from varsity on down? Do you have separate boys' and girls' captains?

I only coach our boys' cross country team. The girls' program is separate. I'm the only coach that the boys' team has had in over 30 years. Except for two different years in the '90s when there was a volunteer assistant, I've never had an assistant. So yes, there are separate captains for the boys' and girls' teams. The captains and the

other seniors play a vital role in our organization, particularly with our daily practices.

What training (leadership guidelines, books, etc.) or words of wisdom do you give your captains? Are there any specific tasks you set for them to foster their development?

We've always had captains. They are a major help for me in dealing a wide range of tasks. Captains are essential for the smooth running of our team. At the same time, in the last few years, we've broadened things to involve all seniors in some of that process. One of those roles involves each senior having their own warm-up groups to lead. After the first week or so of I put together warm-up groups that are made of athletes from different grades, trying to separate friends, with a senior in charge. This way they get to know a wider range of teammates that might not otherwise happen. Our whole warm-up process takes about 30 minutes and is largely run by the captains and seniors. Our captains have had great role models in previous captains and understand the role they need to play during practices, so that everything works smoothly. Meets are another place where captains and seniors play a vital role. The captains and other seniors are responsible for the warm-ups for the different races – Varsity, JV, and Freshman. Our team warm-up for meets has been handed down from generation to generation, with only minor tweaks each season. The captains / seniors are responsible to seeing that it's carried out so that when it's time to race, everyone is prepared and ready to run.

Typically, what is your season-

long racing schedule look like for the different levels? How many big meets do you prepare for? How close are they together?

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ESSENTIAL FOR THE
SMOOTH RUNNING OF
OUR TEAM.**

While our racing schedule has evolved over the last 30 years, it been quite stable for the last 20 years or so, with any changes being mostly due to the date of certain Invitationals moving around. Along with our Invitationals, we have five Tuesday Suburban Council dual meets that typically start the week after Labor Day. Our first Invitational is usually around Labor Day. It's a small, low-key meet with a three mile course that is two loops, all on grass. It's just a hard effort, more than anything else, just to get the feel of racing. Then we have a week-end or two off from racing, followed by trips to Baldwinsville (Syracuse area) and McQuaid (Rochester) on back-to-back weekends. Both had been 3-mile courses, although Baldwinsville just increased their length to 5k. The two races build on each other, with McQuaid being the more important of the two. Then, we have a weekend off from racing, followed by our own Invitational on the Saratoga State Park course. At this point our dual meets are usually over, and with another weekend with no racing, we're ready for the championship races – Suburbans, Sectionals, State, Federations, and Nike Regionals. In terms of the different levels – for Fonda, Baldwinsville, and McQuaid – Varsity and JV runners race there, along with any freshman capable of racing the 3-mile distance. Our

Invitational has a freshman race as do our dual meets and Suburbans, which is where most of our Freshmen run the shorter distance of the freshman course.

What do you do to avoid injuries? (pre-hab, dynamic warm-up, etc.) Can you share some specifics?

We've had the same warm-up routine for the past 13 years. It involves both easy running, stretching – both dynamic and static, followed by a faster ten minutes. We also end our practice with about ten minutes of a combination of ab work, dynamic stretches, and some yoga. Given that, and the fact that for most of the season, we only run around 50 miles a week with recovery days after hard workouts and meets, we make an effort not to pound their legs.

The best prevention though for injuries is communication between the athlete and me about how they're doing. That the athlete has an understanding between normal soreness and pain, and the willingness to let me know if things feel out of order. That information allows us to back off, when necessary, by just having them run easy or bike, if necessary, before it develops into something more serious. In most cases, taking these steps can prevent the initial soreness / pain from developing into something more serious. The athlete needs to feel comfortable in letting me know before it becomes something that will impact them for training.

How much is resistance or weight training used in the off-season versus in-season?

As with their running, what an athlete does during the summer is up

to them. During the season, we're able to get into our fitness center near the end of practice about once a week. It's not very structured, concentrating mostly on the use of light hand-held weights.

Do you use much circuit training? If so, how often? What does this entail?

We don't for cross country but typically we have done a form of circuit training to start each indoor and outdoor track season.

What is your injury management protocol? How do you determine when an injured athlete is ready to "return to play?"

I wouldn't call it an injury management protocol. We've been fortunate in that for the large majority of our runners, injuries are rare. We do have a trainer and we take advantage of his services, when needed. Once he's involved, he takes over and decides the course of action for that athlete. In our past season, athletes needing to see him was rare. The most important factor in preventing and recovering from an injury is communication between the athlete and myself, that they're comfortable in talking to me about some soreness that they may be experiencing before it develops into something more serious.

What personal habits do you strive to inculcate in your athletes? Do the individual qualities differ from what you like to see as a team's qualities?

I would hope that all our athletes are able to take on the characteristics of our previous athletes who helped make us the team that we are today. Those include showing

up at practice every day with the desire to make themselves a better runner, showing up every day to be the best teammate that they can possibly be, to work with their teammates at practice and during races to help make the team stronger, and to encourage all of their teammates, both during practices and during races. While those are the important individual qualities that I would hope that all our athletes demonstrate, collectively, those characteristics reflect the team qualities that have helped make us the team that we've been for many years. Like so much of what we do, the examples set by our veteran athletes, and with them having inherited those qualities for previous generations, serve as the best role models for our younger runners, and help keep those qualities an essential part of who we are as a team.

Social media can be a blessing or a curse – how do you manage that? What about cell phones at practice?

I personally don't take part in any form of social media and the guys know how I feel about it. The dangers that social media presents are spelled out in our Athletic Code of Conduct and are highlighted by an administrator's talk that they have with each team at the beginning of the season. For practices, phones and electronic devices need to be kept out of sight for the duration. The athletes have been good about following through on this.

What is the level of parental involvement with your teams? How do you get the parents "on board" with your goals and objectives?

Our cross country and track teams have had strong, consistent support

from the Burnt Hills Track Club since before I started coaching at Burnt Hills. They provide a wide range of assistance throughout the year but particularly during the cross country season. They help organize the timing and scoring of our dual meets, along with providing course marshals. Parents provide the planning and workforce for the Burnt Hills Cross Country Invitational in October which has grown to almost 100 teams. We're not able to use Burnt Hills buses for meets out of Section 2 so the Track Club organizes the parent-drivers for driving our athletes to those meets.

During the cross country season, the Track Club puts together a yearbook for each of the boys and girls on the team. They also organize the season-ending cross country banquet. We – coaches and parents – work together to provide that best experience for our athletes. Parents continue to step up to fill the ranks to replace those who move on once their sons or daughters have graduated. I've never had to do anything specific to get parents "on board". The positive experiences of our athletes speak volumes for our program to parents, teachers, and administrators.

What is the biggest parental obstacle you face? How do you handle it?

I don't feel that I've had to deal with obstacles from the parents of our distance runners.

Funding all high school sports can be an issue nowadays. How much fundraising do you do? Do financial constraints limit what you'd like to do?

We have a very strong parent or-

ganization, the Burnt Hills Track Club, which was organized about 40 years ago. It puts on our cross country invitational in October. The meet has grown over the years and now draws over 90+ teams each fall. The proceeds from the Invitational help support our cross country, indoor track and outdoor track teams. The Track Club also collects nominal dues from athletes each season, which also helps. The work that I've done as the meet director of the Invitational is the only thing that I've done that could be considered fundraising. We also have a couple of benefactors who make substantial donations to the Track Club each year. We've been fortunate in this regard.

What are your recommendations regarding personal habits like sleep, diet (what people eat) and nutrition (the quality of food eaten)?

Athletes are encouraged to eat well-balanced meals. This past season, our girls' head coach organized a series of workshops for the boys and girls cross country athletes with a nutritionist that was funded by the Track Club and was well received by our athletes.

Psychological strength comes from psychological security. How do you create a team environment that encourages individuals to consistently perform at a high level?

Our team environment, culture, if you will, has been established over the past thirty years. It really is the foundation that has led to our success. There really are two distinct parts of what make up that culture. There's the role that I play in setting the tone and expectations for the

athletes and for the team. Providing the consistency and enabling the building of trust between myself, both with the individual athlete, and with the team as a whole. This is not just during the cross country season; it's year-round, through indoor track, outdoor track, and the summer, as well as.

The other half, which is just as important and, if not more, has been provided by each successive team, building on the traditions and rituals of previous teams. This has always been very important for the guys on the team, adhering to the past, but at the same time making it their own. There are things that have been performed at each practice for over 25 years. This has led to a relaxed, encouraging atmosphere that that has fostered a close, inclusive team. That, mixed with the expectation of consistent hard work and effort at each practice and at meets, allows our athletes to perform at a high level when necessary. This environment, culture, wasn't created in a vacuum or artificially. It came about naturally, although where it is now, is in the vein that I envisioned when I took the cross country position 30y years ago.

What about your stellar performers, the league, sectional, or state champions – what mental patterns or behaviors do you strive to develop in them?

The development for each of our runners starts on their first day of practice. While overall we have a relaxed atmosphere at practice and at meets, when it comes to the work that we do at practice and the racing that we do at meets, there is a seriousness that I want all our runners to have. That's why we do this, why we put all the time and

effort into training, so that when it's time to race, everyone is ready. That mindset is established on the first practice of each season. The veteran athletes set the tone and any new runner picks up on how we do things. The same is true at meets, whether they be dual meets, invitationals, or championship meets. There's time to be relaxed but when we're viewing the course, warming up, doing strides before the gun, and certainly racing, there's a seriousness and focus amongst the entire team. Even for dual meets, we take racing seriously – the effort isn't exactly the same as for our invitational or championship races, but the attitude, mindset, and routine is the same. How we go about things is businesslike, contributing to the focus and necessary toughness, needed for the championship races at the end of the season. So, it all begins with how we, first, approach practices, which then carries through to our dual meets, invitationals, and ultimately, to Sectionals, State, Federation and Regionals. Developmentally, by the time that an athlete finds himself in a varsity position, he's ready to go, no matter what the stakes are.

**THE VETERAN
ATHLETES SET THE
TONE AND ANY NEW
RUNNER PICKS UP ON
HOW WE DO THINGS.**

How much team travel do you do in the cross country season? Is it the same for the different levels?

As mentioned in an earlier question, we take two trips during the season. The first to Baldwinsville, which is out and back in one day. The next week, we travel to McQuaid which

is an overnight for both boys' and girls' teams. Our Varsity and JV teams race there along with any Freshman who've shown that they can handle the 3-mile distance.

What does a typical two-race mid-season week look like training wise? How do you handle recovery in mid-season?

Out of the 14 weeks of the past season, which was typical, we only had three weeks where we had a dual meet on Tuesday and then a Saturday invitational. Two of those weeks were back-to-back in the middle of the season. Our routine for those weeks was the same. We did our dual meet pre-race and then ran the dual meet. On Wednesday, we did about 40 minutes of distance followed by uphill / downhill. Thursday, we did something that we began doing a couple of years ago for weeks like this - ten minutes / five short uphill / ten minutes / 3 x 100m building the first 50m and then finishing for the last 50m hard / then 10 minutes. Once we get into the middle and late part of the season, we don't do much long, hard distance, most of our distance runs are for recovery.

How is discipline handled on your team?

It's very rare that there's a need for me to discipline an athlete on our team but if it were to be necessary, I would handle it individually. I can only think of two or three times in my 31 years of coaching cross country, that I have had to address the entire team about actions that didn't meet the expectations of what we represent.

Psychologists see anxiety as the most contagious of all the emo-

tions. How did you teach your runners to maintain a steely-eyed confidence in the moments before a race start to insure, they would compete, if not dominate?

I wouldn't say that it's something that I explicitly teach. It's much more about creating a certain team mindset that is present every day, at practice and at meets, which then becomes a part of the individual runner's mindset. It's just how we do things. Part of it is approaching everything with a positive attitude - not looking for the negative. Racing is what we train for and look forward to. I've heard many speakers talk about going to the line with the knowledge that they've put in all the hard work and preparation necessary to run well, that gives them the confidence to go out and race to the best of their ability. That's a large part of it. Additionally, while how the team fares is important, the expectation for each runner is the same, all they can do is go out and run their best, whether it's a dual meet, invitational, or championship race. The rest will take care of itself. With that expectation from the start of the runner's career, it helps keep the expectations of the race in perspective and allows the runner to compete at the highest level with confidence and less anxiety.

On the other hand, joy is seen as the most difficult emotion to manage as it can generate doubts (this can't last, I'm not worthy of this honor, why did this happen to me?) or create an inflated opinion of self that can misdirect efforts (conceit, arrogance, feelings of "I don't have to do that anymore", resting on one's laurels). What do you do to maintain an "even keel" and keep the noses to the grindstone as opposed to a

senioritis-type attitude?

I think that it's all about being grounded, both for the individual and for the team. It all goes together. Part of that is not getting too high or too low. Brian Gagnon, an elite 800m runner, who has been our counselor at Foss Running Camp for several years, when he gives his talk at camp, he says that you have 30 minutes afterward to mentally deal with the highs and the lows of the race and then move on. For all our success over the years, nothing changes in our approach to racing. Racing is enjoyable but done in a businesslike way, with a common goal - running the best race possible for each runner, whether it's Varsity, JV, or Freshman. We've never had a problem with veteran runners losing interest during their senior year and that's true for guys who will run all the way through indoor and outdoor track. The best example of this is with our group of four guys who graduated in 2018. They were so dedicated throughout every season of their careers and were just as hungry at the end of their junior and senior years that they organized their entry into the NB Outdoor Nationals, arranged transportation and hotels with their parents for the trip, and then finished 2nd each year, running two of Section 2's top three times in the 4 X Mile Relay. While they were exceptional, in this regard, they represent how our seniors finish their high school careers, whether they be distance runners, sprinters, or field event athletes.

How do you teach racing tactics? Are there basic racing skills you expect all your runners to have? What about the athletes at the highest level?

Whether it's cross country or track, I think that how races are run is incredibly important. In evaluating races, there are two immediate outcomes – place and time. While it might seem, they should carry equal weight, the athlete's place is largely dependent on the other athletes in the race. Most often, the athlete's time is the essential measuring stick for an athlete's performance. For me, it's really only at the championship level where the place becomes the more important outcome, and that's where racing tactics come into play. What we do talk a great deal about though, is pacing, which in my mind is different from racing tactics. The runner needs to figure out the pacing for the time that he wants to run to reach his goal. This is one of the values of dual meets, where athletes are able to get the experience racing different distances, to get a sense of the pacing that will yield an improvement in their time. It's something that we talk a great deal about, both before the race and especially afterward when evaluating the race.

To me, the other hoped-for outcome of a well-paced race, is a strong finish by the athlete. Developing that "kick" becomes even more important in a championship setting, where the finishes of the individual runners will determine the final result. Once the athlete has a sense of the pacing that results in his running a strong race, he is better able to use that in developing the necessary tactics that it takes to run well and place in championship races, whether it be cross country or track.

Race courses repeat year after year. Do you have an inventory of course demands or simple profiles of a race course that is shared with the team? Is this pro-

cess done formally or informally?

Over the course of 30 years, I've seen many, many cross country courses, in Section 2, across the State, and a few out-of-state. I have stored away memories of just about every course that we've run on, even courses that I ran in college. The demands and the profile of the course are part of what I cover when going over courses before we race there. For most of the courses, particularly those we've run on frequently, there's the past knowledge of our previous races over that course and how we've handled our races there. That helps ramp up the interest in the upcoming meet. This might take place in the days before but more of it will take place when we're doing the team run-through of the course on the day of the meet. This is where guys talking about their own experiences on the course is particularly helpful.

***MOST OFTEN, THE
ATHLETE'S TIME
IS THE ESSENTIAL
MEASURING STICK
FOR AN ATHLETE'S
PERFORMANCE.***

What has kept you motivated doing this year after year?

While there are a number of factors that have kept me motivated to continue coaching cross country, and also track, the primary reason that I'm as motivated now as I have been throughout my career, is that I continue to have athletes who are incredibly dedicated to our team, and to improving themselves as runners. They understand our process and believe in it, knowing that if they

put in the hard work and effort, the payoff is their improvement and the resulting performance of our team. While this process has evolved and been strengthened over the last 15 years or so, since the beginning, it's been understood that to reap the rewards from running requires dedication and commitment to improving as an athlete. From the beginning, I feel that we – athletes, team, and myself – have always been on the same page with all aspects of our program: training, racing, schedule, and most importantly, our culture. I have been incredibly fortunate to have been able to be part of what we have here, and to coach each of the athletes that I've coached over the years.

What do you see as your greatest coaching strength?

I think that my greatest strength is my ability to get a sense of where each athlete is, both physically and mentally, from the very beginning through their senior year. This is something that I've gotten much better at over the last 20 years or so. In the early part of my coaching career, I was too focused on the top runners in each group – Varsity, JV, and Freshman – and perhaps not paying enough attention to the entire team. As my own running slowed down, and even more so once I retired from teaching, I been able to pay more attention to our entire roster, each as an individual runner. It wasn't something that I necessarily did consciously, it just evolved. It's helped make us a more inclusive, closer team.

How do you handle pep talks? Individually, as a team or both?

The talks that I have with the team and with individual runners before

races are a combination of strategy session and pep talk. They're usually straightforward and low key, with my going over the course, the team(s) that we'll be running against, top individual runners, and generally what each of the runners should be looking out for. There are some differences between those for dual meets where Varsity and JV run together, invitationals, and championship races. For any overnight – McQuaid, State, Federation, Regionals – those are our bigger meets, we always have a team meeting the evening before the meet to run through everything about the next day's race, starting with the schedule, things to pay attention to throughout the day, the strategy for the team, and ending what could be considered a pep talk. If the JV is racing, like at McQuaid, I'll have a similar talk with them separately. For dual meets, it's more low key, more focused on what needs to be done to win tactically, without the same expenditure of energy as for an invitational or championship meet.

What do you say to your team in the huddle in the minutes before a race start? How does this differ from a dual meet to a championship?

This has changed over time. Early on, I would give more information about the upcoming race, but I realized that it wasn't that useful giving it just moments before the gun goes off. Now, I do it in stages, some just before they start their warm-up, usually what we're up against for that race and then, a more detailed look about how the race should play out. In the huddle, it might just be a few keys to the race for individuals and for the team, but it's short and sweet. I think that for dual meets, it's more routine, mostly about how

to pace and still run strong enough to win, giving just the right amount of effort to make that happen.

If I were a new coach, what do you feel are the first things I'd need to get a handle on?

I think that the first thing that a new coach, starting with a new team, is to get a handle on the where each athlete is coming from – their experience, their athletic background (not just running), their expectations, past performances, and their goals for the season and beyond. Then, taking that information to begin working on a plan to bring each of those individual runners together as a team. That would be the beginning of creating the culture that the coach envisions for building a successful team.

What is the most amazing thing you have seen, something you will never forget?

I would have to say, not just the most amazing, but for me, the most meaningful, was Otis Ubriaco's 3200m win at the 2010 NYS Outdoor Track Championships. I was on the far side of the track, across from the finish line, watching and cheering Otis on. Even 25 meters from the line it didn't look like Otis would be able to get to Chad Noelle but he kept closing and caught him right at the line to win by 0.02 seconds, 9:04.75 to 9:04.77, and with a slew of finishers right behind them. I have a CD of the race and every time that I watch it, I think that there's no way that Otis can get there. They negative split the race – 4:35.86 / 4:28.89 – with Otis running a 60.7 last lap.

The Gauntlet – the Suburban Council has a scheduling oddity

that schedules seven races in 17 days in the middle of the season. How do you balance racing and training during this time? Why has this situation not changed?

Frankly, I've never seen it as a problem. For us, it's always about how we've been able to manage our dual meets throughout that time, trying to do just enough to win. With the dual meets generally being on a Tuesday, there's enough time to recover before the weekend Invitational. There was a year where we had to run the dual meet on Wednesday before our trip to McQuaid. That was a little tight, but we still raced well at McQuaid. In any event, the way our weekend invitationals are scheduled, there's a two week period at the end of September, where we have a dual meet on Tuesday, and an invitational on Saturday. A couple of weeks later, we have one week with the same configuration. We've always been able to manage it. How other coaches in Suburban handle it, that varies from team to team. Regarding why it continues to exist, that's the decision of the Suburban Council Athletic Directors. Over the last several years, the coaches have had very little input regarding our schedule.

Is there a question you don't get asked often but wish it was asked?

Until recently, I was rarely asked any questions about what we do. It's only been in the last year or so that anyone has asked me about what it is that we do. I'm open to those questions, although there's no real "secret" as to what we've been able to accomplish, as I think my answers in this interview reveal.

LETTER FROM KENYA

This is the second Letter From Kenya by Jason Karp who recently spent six months living, coaching and training in Kenya. He debunks some myths about Kenyan distance runners.

BY JASON R. KARP, PHD, MBA

Dear Coach,

Hello from Kenya! I'm writing another letter to you, this one from the dirt, stone-littered track at Tambach Teachers College. Tambach, which overlooks the Rift Valley, is the main track where the local Kenyan runners do their workouts. We are here today for my athletes' workout: unlimited reps at lactate threshold pace, starting with 1,600 meters, then cutting the distance of the reps down to 1,200 meters, then 800 meters, then 400 meters as the athletes fatigue. We try to squeeze out as much volume as we can at threshold pace to train their threshold and their aerobic endurance.

While the Kenyan runners have specific habits that complement and support their immense talent, there are many myths swirling

around about what goes on here. Here are a few of them.

Myth #1: The Kenyans run barefoot.

Kenyan runners don't run barefoot, nor do they want to run barefoot, nor do they think running barefoot makes them faster runners. They run in used, hand-me-down shoes from visiting runners from other countries. They desperately want running shoes. When I took them shopping for shoes, they chose the most cushioned ones. They couldn't run barefoot even if they wanted to because nearly all the running they do is on rocky dirt roads. No matter how calloused your feet or how strong and stable your ankles, you would hurt yourself if you tried to run barefoot on these roads. It's hard enough in shoes! Even the kids in Kenya wear shoes or sandals. No

one is walking or running around barefoot. And there is no scientific or empirical evidence that running barefoot makes anyone (Kenyan or otherwise) a faster runner.

Myth #2: The Kenyans stretch.

If you've ever run with a dog or watched a horse race, you may notice that animals don't stretch before or after they run. Humans are animals, too. Your athletes' muscles, bones, and tendons work exactly the same way as other mammals' muscles, bones, and tendons.

The Kenyan runners, who are also animals just like your athletes, don't stretch. I have not seen one Kenyan runner stretch before or after running. I have asked them about it. "It's rare," I have been told.

Most runners think or are told that

they should stretch before or after running to prevent injuries, improve performance, and alleviate soreness after a workout.

Stretching may reduce injuries for explosive or bouncing activities, by increasing compliance of tendons and improving their ability to absorb energy. For low-intensity activities that don't include bouncing movements, like running, cycling, and swimming, stretching doesn't prevent injuries.

Stretching also doesn't improve performance. Your athletes won't run faster or longer because they bend down to touch their toes before or after they run.

When your athletes run faster or longer than what they're used to, microscopic damage occurs to their muscle fibers, which is a normal part of training. In response to the muscle fiber damage, inflammation occurs as more blood travels to the site, bringing with it white blood cells to start the healing. Your athletes can feel sore a day or two after a hard workout because of the damage-induced inflammation, which is called delayed-onset muscle soreness (DOMS). Stretching doesn't make muscle fibers heal more quickly, so stretching won't make them feel less sore. Only time and optimal nutrition (carbohydrate and protein) will alleviate the soreness.

Myth #3: The Kenyans eat very healthy.

Although the Kenyan runners don't eat processed food, it is only because they don't have access to it. Iten is a rural town, with no refrigerators or freezers to store food. Meals are prepared from scratch.

Milk comes from the local cows.

Except for the best Kenyan runners who have the financial resources to buy food, most of the runners in Iten don't have money for food. They don't eat before morning workouts and have little food the rest of the day. No burgers, no pizza, no meatballs and spaghetti, no salads with chicken strips on top. Just rice, beans, potatoes, lentils, local vegetables, ugali (a stiff, maize flour porridge), milk straight from the local cows, chapati, and chai tea. Their diet is mostly carbohydrate but low in total calories. Research on Kenyan runners has shown that they're frequently in a negative or borderline caloric balance. It is remarkable that the runners here are able to train at such a high level without consuming many calories. They are either born or have become metabolically very efficient.

While it could be said that the Kenyans' diet is healthier than the average American diet because it is devoid of processed foods, it is very basic with not much variety of nutrients, and it is lacking in total calories.

Myth #4: The Kenyans strength train.

The Kenyan runners don't strength train. They don't do bodyweight circuits, core stability exercises, or heavy deadlifts, squats, or power cleans. They run. A lot. Twice per day every day, with long, exhausting workouts. Even if they wanted to strength train, they would not have the energy to do so on top of all that running.

Distance running is not about strength; it's about oxygen delivery by the cardiovascular system, oxy-

gen use by the muscular system, and motor unit recruitment by the central nervous system. This latter factor perhaps gets the most attention from strength training proponents, but there's no scientific or empirical evidence that strength training actually makes someone a faster runner apart from the effects of increasing running volume and intensity. And there's no evidence that strength training prevents running-related injuries. Running and bounding exercises up hills are perhaps the best forms of strength training for a runner.

Myth #5: The Kenyans are good runners because they live and train at altitude.

Although many coaches and athletes attribute much of the success of the Kenyan runners to their altitude training, there is little evidence that training at altitude is superior to training at sea-level for improvements in running performance. There is some evidence that living at altitude and training at sea-level ("live high/train low") may improve sea-level running performance by inducing the increase in red blood cells (erythropoiesis) associated with altitude exposure while maintaining sea-level training intensities.

Historically, the best U.S. distance runners (with the exception of a few) have been born, raised, and trained at sea level. If altitude were the reason for the Kenyans' success, the same phenomenon in the U.S. would occur, with a disproportionate percentage of elite U.S. runners coming from altitude compared to the percentage of the population that lives there. Even my own published research on the 2004 U.S. Olympic Marathon Trials qualifiers found that there was no difference

in marathon performance between athletes who trained at altitude and those who didn't.

Altitude has nothing to do with why the Kenyan runners are so good.

Coach, I hope my letter sheds some light on the myths of the Kenyan runners!

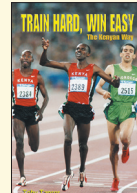
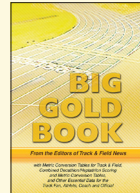
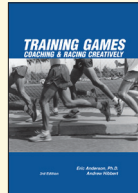
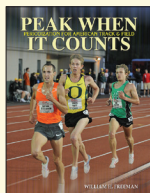
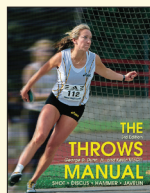
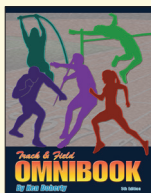
Mpaka wakati ujao (Until next time),

Coach Jason

Dr. Jason Karp is an American distance running coach living and coaching in Kenya. He is founder and CEO of the women's-specialty run coaching company Kyniska Running. The passion for running Jason found as a kid placed him on a yellow brick road that he still follows as a coach, exercise physiologist, speaker, and best-selling author of 12 books and more than 400 articles. He is the 2011 IDEA Personal Trainer of the Year and two-time recipient of the President's Council on Sports, Fitness & Nutrition Community Leadership award. His REVO₂LUTION RUNNING™ certification has been obtained by coaches and fitness professionals in 25 countries.

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TRAINING THEORY AND THE FOUR LEVELS OF SPORT

BY RUSS EBBETS

Several years ago I was asked to give a clinic in New Jersey. I was to talk on injury prevention and crafted the presentation around two things – that injury prevention in track & field should be an ever-present concern for a coach and secondly, that a comprehensive injury prevention program could be formulated with forethought and minimal expenses.

In my opening remarks, I mentioned the name Tudor Bompa and the first hand shot up. First question of the day.

Who is Tudor Bompa?

I was surprised by the question but took a 20-second detour to introduce one of the world's leading training theorists of the last 50 years. I asked the audience – how many are familiar with Bompa's work? Figured I would establish

a BIG common denominator within this audience and draw on it throughout the presentation.

Three hands went up, three. There were between 80-100 coaches in the room. For a long second, I considered some options. The whole presentation hinged on contributions Bompa and several other iconic training theorists had made. My miscalculation necessitated a mid-course correction, from the start. The focus was shifted from nuanced insight to basic fundamentals. In the end it all worked out, fundamentals are always valuable.

To that end this piece will discuss eight training theory fundamentals and then apply them via the four levels of sport. Hopefully this will illustrate a wide range of concepts and clearly demonstrate how some concepts are of greater or lesser

import depending on the particular level of sport one is applying them to.

A PRIMER IN TRAINING THEORY

Periodization Defined

Sport scientist Richard Bucciarelli has defined periodization as “the systematic planning of athletic and physical training. The aim is to reach the best possible performance in the most important competition of the year.” (2016) There are three important components to Bucciarelli's statement. Firstly, there needs to be a “systematic plan” implying there are steps or procedures that happen or evolve in an orderly, versus random, manner.

Secondly, the time, effort and energy that goes into this plan is

directed towards a competitive effort, “the best possible performance.” Periodization is used to realize human potential and to push the limits of speed, strength and endurance into uncharted territories. Periodization is not for simple fitness, weight management, stress release, lifelong fitness or children. Periodization is to enhance the competitive performance of adults.

The final component is that performance takes place “at the most important competition of the year.” Periodization is not to prepare the body’s physiology and musculature to a fine point to produce a superlative effort the next time one is having a “good day.” But rather periodization is the masterful and artful preparation by the coach to have the athlete physically, technically, tactically and psychologically firing on all cylinders, so the athlete is able to accomplish pre-determined goals as a season/career training plan dictate. Culmination of this plan is usually a season ending “terminal competition.” These “pre-determined goals” may take months to years to realize.

The career of an athlete is short. The masterful and artistic application of periodization allows for the coach and athlete to maximize skills and abilities when needed.

If it is true, that most of humanity’s forward thinking is only 30 seconds into the future (about as far as one can see) one can begin to understand the novelty and challenge periodization presents for many people.

Time, Time, Time

Periodization is time management in an athletic sense. A season is

really a collection of smaller time units broken into weekly, monthly or seasonal chunks of time. While this may be self-evident for a coach who uses the various methods to manage time (i.e. journals, calendars, cell phone planners, etc.) this may also represent a “great unknown” to the person whose hours are spent rebounding from one text message to the next with lives spent one day at a time.

PERIODIZATION IS TIME MANAGEMENT IN AN ATHLETIC SENSE.

The concept of time management and forethought is a core principle of sport scientists of the past. Bompá in a *Track Coach* interview stated, “Planning to me is the key to everything,” (TC#164). Bompá also stated that “time is quite often the limiting factor in training,” (Bompá, 1983). Even accomplished athletes have noted the critical importance time plays in their development. The great miler, Jim Beatty stated, “One habit that anyone involved in sport cultivates is time management.” (TC #166).

An athlete’s career has a limited time span. Performance at the highest levels can roughly run from ages 18-30 before the erosion of skills and the distraction of responsibilities begins to detract from the quality and quantity of time, effort and energy that produces an evolving, superlative result.

To that end it becomes imperative the coach, athlete or parent create a training environment that capitalizes on the time at hand. This allows for the planning and forethought that goes into the various training cycles. Meshing these cycles

together, in a sequential manner, enhances the work of training.

The Evolution of Thought

Physical training is about the management of physical stress. The concept of stress evolved throughout the professional career of endocrinologist Hans Selye. In his classic book *The Stress of Life*, Selye details his 20-year journey to validate his belief that at the core of all human maladies is an inappropriate response to stressors (Selye, 1956). Selye developed this concept in spite of his advisors and mentors cautioning him that such a pursuit would be tantamount to wasting his life.

Selye’s General Adaptation Syndrome model graphically represents a timeline against which different stressors can be charted from the short-term activities such as an athlete’s performance all the way through to one’s life (Figure 1).

Soviet sport scientists adopted Selye’s concepts and used modulated stress of training to force or allow the organism (the athlete) to adapt to the different stresses used to challenge the athlete. This was the beginning of modern training theory (Viru, 2002).

The resulting Yakolev’s Model (Figure 2) is a sine wave pattern of stress, recovery and adaptation. This pattern is repeated through the various time cycles and promotes an evolution of physical, technical, tactical and psychological qualities that together create a more complete athlete.

The X and Y axes of Yakolev’s Model succinctly summarize the process of training. Positive X

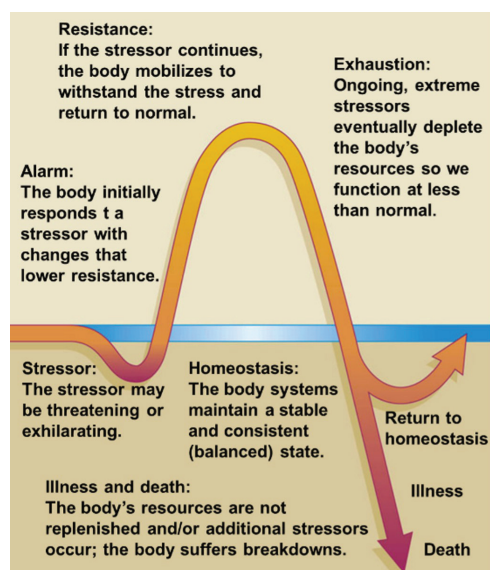


Figure 1: Selye's General Adaptation Syndrome

represents the progressive march of time. Positive X also represents one's basic metabolic rate or homeostasis, the theoretical balance between work and rest. The Y-axis represents a state of performance or health with +Y being adaptation to a training stressor and -Y representing fatigue or the longer-term maladaptation to a stressor as evidenced with overtraining,

performance stagnation, illness or injury.

Stressors and the expenditure of effort create fatigue, dropping one to a low point, what Martin and Coe called "the Valley of Fatigue" (Figure 3). This is followed by a time of rest and recovery. If this time period is adequate there will be some form of adaptation by the body as evidenced by enhanced performance. Periodized training repeats this cycle through the forward progression of time be that days, weeks, months or years.

The pursuit of excellence is a multi-faceted journey. On one hand there are clear markers or traits that are necessary, if not critical. Perseverance, diligence, goal-directed behaviors, personal responsibility would all make any coach's short list. The problem becomes in trying to determine how much perseverance, diligence, etc. is productive and healthy and at what point the pursuit of these personal qualities is detrimental to development.

Compounding this dilemma is the default thinking that "more is better" or that the acceptance of "good enough" is a sign of underachievement. Adherence to either belief creates an element of doubt or an irrational compulsion that can compromise forward movement.

The three boxes have traditionally represented 65%, 80% and 95% efforts. Qualitatively these numbers can be difficult to define. Further complicating matters is that the motivated athlete often sees a 65%/easy day as "too easy" and therefore not contributory towards

The 3 Boxes

Verkhoshansky taught that application of the hard-medium-easy 3-day cycle was the core of weekly training plans, but also longer four and six-week training cycles. Visually hard-medium-easy (Figure 4) is an easy concept to comprehend. The concept is more challenging in actual practice. The reasons for this are varied.

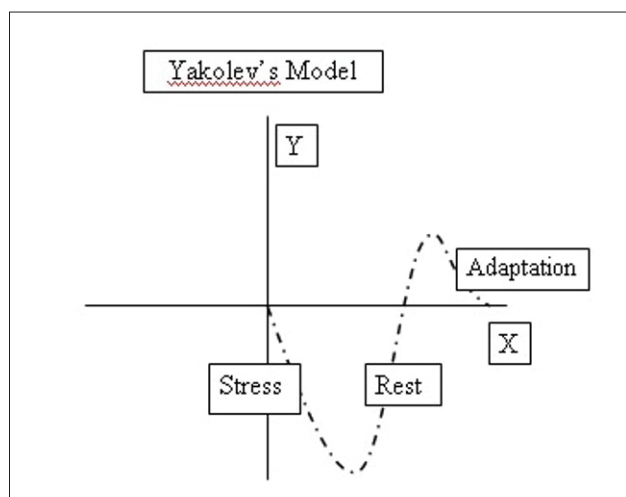


Figure 2: Yakolev's Model
+X represents time. Basic metabolic rate
+Y represents improved performance
-Y represents fatigue, illness and injury

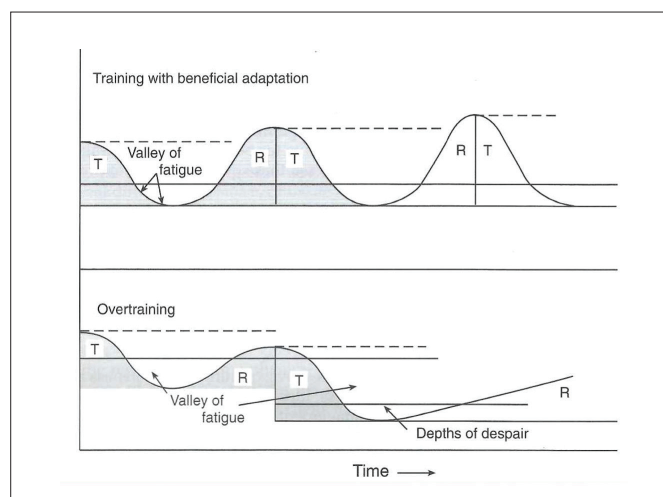


Figure 3: Martin and Coe's Valley of Fatigue
Top picture: Improvement over time
Bottom picture: Overtraining and decreased performance
R – recovery, T - training

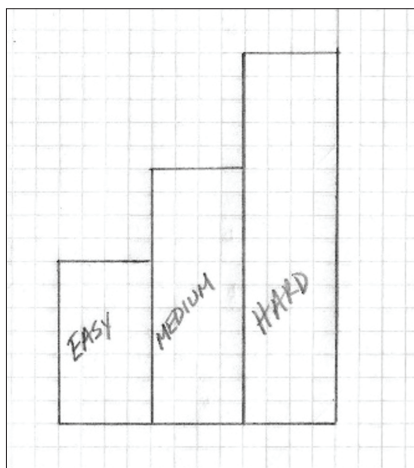


Figure 4: The 3 Boxes – 3-Day Training Cycle

Easy day – 65% effort
Medium day – 80% effort
Hard day – 95% effort

the larger goal. At the other extreme, the 95% effort day may be exceeded on a day an athlete feels particularly good disrupting the short-term training plan and potentially the long-range plan. Decathlete coach Harry Marra espoused the modified concept of 80-90-100. Train at 80%, arrive for competition at 90% and be 100% healthy (TC#202).

Coaches and athletes who have mastered the hard-medium-easy pattern can breeze through training cycles safely and effectively. Modulated efforts execute the long range plan by applying the cyclic nature of training and progressive overload with the patience and faith necessary to both let and make something happen.

Cycling through the three boxes allows the coach and athlete to have two harder workouts per week with enough programmed rest in the weekly plan so as not to create an overtraining situation. This all hinges on whether this pair allows the easy day to be easy.

Individual sport athletes are notorious for being overtrained. Winsley (2011) reported an overtraining incidence rate between “20-30%, with a relatively higher occurrence seen in individual sport athletes, females and those competing at the highest representative levels.” When the will to succeed overrides the sense to rest, a negative spiral can develop with both short and long term consequences.

BOTH PREHAB AND REHAB EFFORTS CAN FOCUS ON BIOMOTOR SKILL DEVELOPMENT.

Exactly what constitutes an “easy” day is subject to different interpretations. Lasse Viren’s easy day consisted of 5-minute kilometer/8-minute mile pace (TC #198). This 8-minute per mile pace must have been grindingly slow for a 27-28 minute 10k runner, but his coach believed that this low-level cardiovascular recovery running (heart-rate below 125 BPM) developed a more thorough capillary network in the body which greatly contributed to a secondary level of endurance.

Biomotor Skill Development

Frequent, if not daily, attention should be paid to the development of the five biomotor skills (speed, strength, endurance, flexibility and the ABC’s of agility, balance, coordination and skill). Biomotor skill development is a critical component of safe and long-term involvement in sport. Additionally, attention to and development of the five biomotor skills is central to the all-around concept of multi-lateral development.

Biomotor skill development also plays an important role in the four levels of sport. For the beginning athlete a broader base of development of biomotor skills creates a greater inventory of skills which can be drawn upon as one’s ability expands. Biomotor skill development can also be seen as a form of “invisible training” where the muscles, bones and other soft tissues of the body become conditioned for the stresses of varying volumes and intensities as the progressive overload demands.

With maturity and event specialization attention to the biomotor skills still plays an important role in strengthening the “weak links” within the body that the repetitive nature of technical development often demands.

Both prehab and rehab efforts can focus on biomotor skill development. The difference between the two would be the intent of the training. Prehab efforts would ultimately address all-around development of the biomotor skills. Rehab efforts would not address speed development and the attention here is given to restoration of “normal” that would be determined with return to play testing.

Progressive Overload

Progressive overload is the continual attempt to increase the work capacity of an athlete over the course of a season or career. With the application of the three boxes (hard-medium-easy) and the adaptation of the physical capabilities of the athlete the work capacity will incrementally increase over time. This assumes the training loads are appropriate for the athlete at a particular point in a career and

the athlete remains healthy and injury-free.

Determination of progressive overload hinges on other factors that can either enhance or impede training. Multiple environmental conditions (heat, cold, wind, barometric pressure, etc.) can individually or collectively present challenges that could influence results. The psychological impact environmental conditions present are often overlooked as they may alternately serve to harden the will or present as “another obstacle” that can erode the will through frustration and a decreased ability to manage change.

Volume and Intensity

The leading factor for performance improvement over the last 50 years is due to increases in physical work capacity (Bompa and Haff, 2009). The ability to train more, recover from that training and successfully repeat the process over the course of time has created athletes with the capability to produce and withstand the competitive performances necessary for success in current times.

Basic to the concept of work capacity are the training factors of

volume and intensity. From one’s earliest participation coaches and athletes strive to find a complementary balance between the two concepts that in turn leads to an enhancement of both qualities.

INTENSITY CAN ALSO BE MODULATED BY THE LENGTH OF THE REST PERIODS IN A WORKOUT.

Volume is the quantity of work done. There are numerous ways volume is quantified. Depending on one’s discipline (speed/power events or endurance) volume may be recorded in miles done or minutes run, sets and reps, technical elements performed or ground contacts completed. Results can be recorded and used as a yardstick or benchmark from which future training can be charted.

Intensity is the measure of effort. Physiologically work is the result of effort and leaves its own set of markers. The measurement of one’s heartrate provides a low tech measure to monitor effort with escalating heartrates corresponding to various effort intensities and the energy systems being utilized.

most physically gifted athlete. Conversely, longer rest periods for speed/power athletes can allow the body’s natural regeneration reaction and creatine phosphate formation to allow the athlete to more successfully complete multiple sets of resistance work.

Other measures of intensity such as Newtons (the force that gives 1 kilogram of mass an acceleration of 1 meter/second) or joules (the work done when the force on one newton moves an object one meter) both contain the element of time. Although less common, these measures may also provide useful information of the intensity of work done that can again, be used as a reference point for future efforts.

Classically it has been recommended that a season long cycle begin with a higher level of volume and a lower level of intensity. As a season progresses volume decreases and intensity increases. Seasonal volume and intensity curves graphically produce a characteristic x-pattern (Figure 5). Volume and intensity should not be increased at the same time. This is a common mistake of a new or recently motivated athlete as opposed to a seasoned veteran. Attempts to increase volume and intensity simultaneously usually result in illness, injury or performance stagnation as the stresses produced on the body are too great to handle and is neatly summarized with the sentiment “too much, too soon.”

THE FOUR GLOBAL CONCEPTS

Ultimately one needs to formulate an organizational plan that encom-

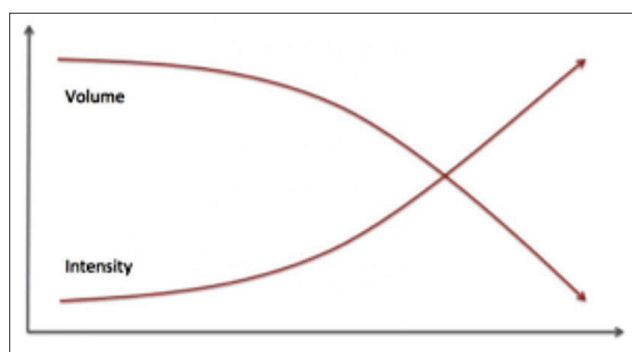


Figure 5: Volume and Intensity X Pattern
X-axis – passage of time
Y-axis – higher intensity or volume

Intensity can also be modulated by the length of the rest periods in a workout. The demands of a rapid fire circuit training routine can produce a high intensity workout in a concentrated time for even the

passes the seven points discussed above. Rather than attempting to “re-invent the wheel” one can copy what Bompa called the Four Global Concepts (Figure 6) of physical development, technical preparation, tactical execution and psychological strength. This is a tried and true approach to coaching. The grid encourages identification, development and management of athletic talent over a four-year cycle. This model has been championed since the 1950’s by numerous authors (Medveyev, 1981; Kurz, 2001; Siff and Vershonshyy, 2004; Bompa, 2009; Connolly, 2017).

The Four Global Concepts allows the coach to sculpt his or her program according to a coach’s knowledge, philosophy and aspirations. There is tremendous leeway in terms of what is included. The beauty of this model is that it can accommodate a wide range of ability levels while at the same time offering a comprehensive approach to training that develops the whole athlete. (see Figure 6 for suggestions)

Further, use of the Global Concepts affords the coach the opportunity to capitalize on training time, be that the weekly, monthly or seasonal cycles. Training can be streamlined over a four-year period improving the effectiveness of the long-range training plan through the presentation of team standards, values and expectations that offer a clearly presented pathway for growth by the athlete.

When shared with the athlete the four-year plan underscores the coach’s expectations of a progressive development of the athlete’s skills via development of the athlete as a person. This concept is often marginalized or lost in the discussion of training theory.

Finally, use of the Four Global Concepts lends itself towards creating a valuable season-end coach-athlete review. Using the four categories (physical, technical, tactical and psychological) grades can be assigned to the various traits or qualities à la the Athletic Report Card (TC#93). This report card can give the athlete tangible

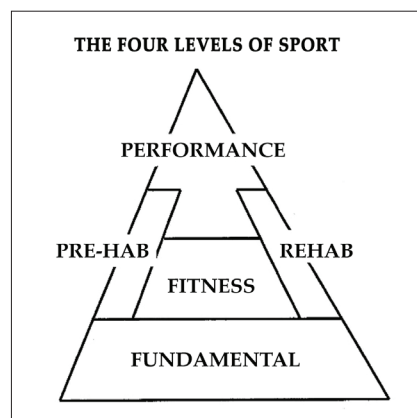


Figure 7: The Four Levels of Sport

discussion points for future goal setting with the coach, teammates or other professionals affiliated with the team such as the sport psychologist or strength coach.

THE FOUR LEVELS OF SPORT

Training theory and periodization mean different things at different ages and stages of an athlete’s career. It helps to frame the argument if one looks at sports participation as consisting of four distinct levels of participation (Figure 7). Each level has its own goals and objectives along with its own set

Components of the Four Global Concepts

Years	1	2	3&4
Psychological	psychological strength – change management – resourcefulness – personal responsibility leadership qualities – self-reliance – diligence – self-esteem – self-efficacy time management – mentoring – inspiration – personal sacrifice – willfulness public communication – personal example – goal orientation – adversity management loyalty – motivation – managing Dick’s “agencies” – honoring team/national traditions social media presence/ management – grit		
Tactical	competitive nuances – willfulness – gamesmanship – rule nuances – venue idiosyncrasies – technique nuances – competition profiles/tendencies mastery of environmental challenges – personal resolve – showmanship public demeanor		
Technical	technical excellence – biomechanical efficiency – body movement symmetry – coordination – consistency – stretch reflex coordination – summation of forces – power development		
Physical	↑work capacity – physical fitness – health (injury free) – seasonal peaking strategies – expanding skill inventory – biomotor skill development – personal hygiene – diet and nutrition – sleep patterns – hydration patterns		

Figure 6: Suggested qualities and values for consideration that would be introduced in a progressive manner over the four-year cycle.

of challenges. Sports participation viewed in this regard allows for a more appropriate level of expectations as to what can be and should be accomplished at the individual stages of a career or throughout an athletic lifespan.

The Fundamental Stage

The Fundamental Stage is the entry level into sport. Initially one might see this as a starting point for a child, but it could also serve the sedentary adult whose middle-aged motivation has led him to a more active lifestyle.

The establishment of movement fundamentals and a skills inventory will create a background from which future efforts can be formed. Bompa's admonishes us to not "fatigue the system" regarding the child athlete and the balance that needs to be struck between growth and development versus training and competition. His recommendations of not exceeding 65% efforts allows for activities that are not exhausting. And while these "easy" efforts would run counter to the "no-pain, no-gain" mentality it would promote the desired growth and development, at this stage, versus the more energy demanding training and competition of the mature athlete.

But what about the "new" mature athlete? Would this approach work? If one were to view the movement into a fitness lifestyle as a process this approach would be a first step in a long journey. Lifetime fitness would entail most of the training considerations noted in Figure 8. Focus and attention to these training components could be crafted so that a graduated entry into an active lifestyle could

Suggestions for Fundamental Skill Development

Neuromuscular education
Postural, core and dynamic stability
Focus on movements over muscles
Multi-lateral biomotor skill
(speed, strength, flexibility, endurance, ABC's) development
Invisible training of muscles, joint capsules, ligaments, tendons, fascia
Whole action - technical development
Testing for progress and development
Allows for growth and development

Figure 8. Suggestions for Fundamental Stage Skill Development

be designed safely with minimum risk of injury along with sound fundamental movement patterns that would lay a solid foundation if the transition to occasional competitive efforts becomes a desired goal.

Fitness

Physical fitness is classically defined as the ability to meet present and future physical challenges with success. This is contingent on one's stage of life or even the stage of one's career. A determining factor in one's assessment of fitness is the activities of daily living (ADL's). An athlete's life could be filled with miles of running or hours of weight training versus a retired person's ADL's that include walks, golf and shopping.

Physical fitness, at least in the U.S., is defined by the aerobic paradigm and cardiovascular fitness. This is an outgrowth of the running boom of the 1980's where the repetitive motions of running have morphed into a series of linear

activities (Figure 9) that stress the cardiovascular system while often reducing or transferring the stresses of the activity from common problem areas such as the knees and low back.

The linear, straight line, sagittal plane movements bear comment. While the movement skills depicted in Figure 9 all promote cardiovascular fitness it is to the detriment of one's lateral movements and dynamic stability. Taken to extremes these exercises promote overuse injuries and limit multi-lateral (all-around) development. Why is this a concern?



Figure 9: Sagittal Plane Linear Movements
These movements are commonly used to promote cardiovascular fitness in America to the detriment of postural control and dynamic stability

Multilateral development is a component of dynamic stability (the ability to maintain postures while moving) which are biomechanically more efficient, offer better force application and decrease injury risk. Admittedly, these are more considerations of a performance-based athlete. While training linear movements can create a beneficial effect on one's cardiovascular fitness level they will make less of a contribution to the speed and power qualities necessary for competitive effort success.

Performance-Based Training

Performance-based training is where the application of sport science and the concept of periodization intersect to produce outstanding efforts. Weekly workloads and artful manipulation of quality and quantity of work with pre-determined cycles and phases are linked together with specific goals of increasing work capacity through the artful refinement of the Four Global Concepts of physical fitness, technical preparation, tactical execution and psychological strength.

The Soviets taught that training at an elite level (performance-based training) is not a natural or healthy thing to do to the body. There is a price to be paid for the continual stresses and strains that challenge the adaptive capabilities of the body. If this is true it underscores the import of a comprehensive career management plan and development of the "whole" athlete. The other option, a laissez-faire approach towards training, is sure to result in frustration, unrealized potential and a shortened career.

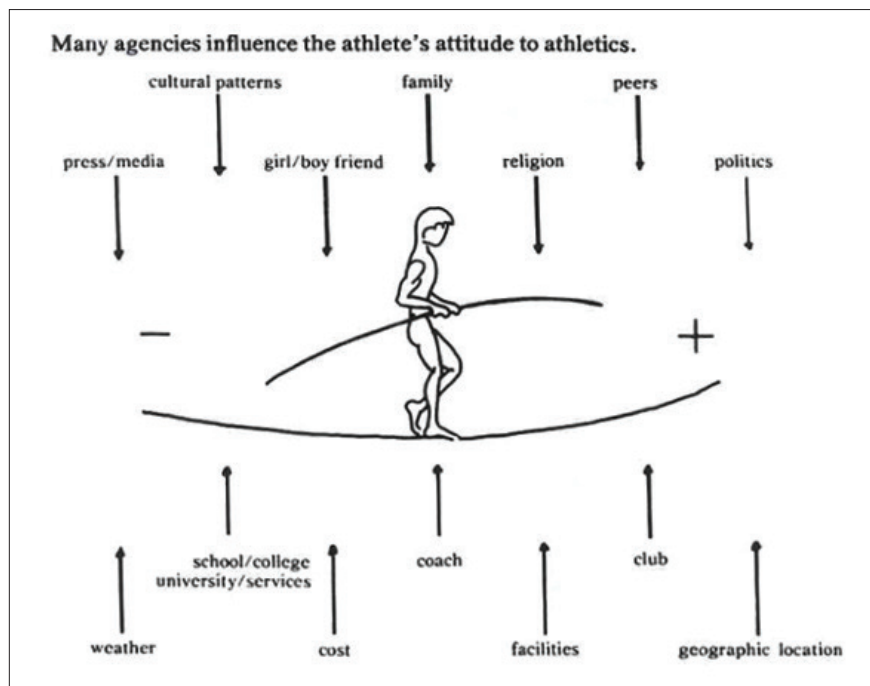


Figure 10: Dick's "outside agencies"
Outside influences that can affect athletes

The diligent, repeated cycling through of hard-medium-easy days allows the athlete to repeatedly descend into Martin and Coe's "Valley of Fatigue" with the realization of both the potential for harm (overtraining, injury) or that a desired benefit (resilience, adaptation) may be the result. It is a fine line that separates just enough from too much but underscores the truth of F. Scott Fitzgerald's quote, "brave men and women play close to the line."

The application of the Four Global Concepts therefore becomes a critical component of performance-based training as opposed to a secondary or minimal concern in the Fundamental or Fitness stages of training, respectively. Use of this model allows for a "road map" of sorts whose incremental changes can be charted, and in time, accomplished.

The beauty of the Four Global Concepts model for the performance-based athlete is that it effectively allows the coach to design a career plan that neatly organizes the training theory fundamentals discussed above (periodization, volume and intensity, progressive overload, etc.) into a comprehensive overview that can serve as a distant, yet guiding light as opposed to time spent aimlessly drowning in the minutia of day-to-day struggles or a career constantly compromised by Dick's "outside agencies." (Figure 10)

Prehab or Rehab – The Fourth Level of Sport

Prehab or rehab is an either/or situation. Either one does prehab preventive exercises or the unavoidable damage of countless repetitive motions eventually creates biomechanical imbalances that present with physical breakdown at

Training Objectives	Rehabilitation Concerns
Neuromuscular education	Neuromuscular re-education
Postural, core and dynamic stability	Restoration of ill or injured to “normal” state
Focus on movements over muscles	Focus on muscles over movements
Multi-lateral biomotor skill (speed, strength, flexibility, endurance, ABC’s) development	Focused strength, flexibility, endurance, ABC’s (no attention to speed)
Invisible training of muscles, joint capsules, ligaments, tendons, fascia	Rehab with pain-free range of motion of muscles, joint capsules, ligaments, tendons, fascia
Whole action - technical development	Part action – attention to weak/broken links
Testing for progress and development	Testing for “ return to play ” concerns
Allows for growth and development	Delays growth and development

Figure 11: Prehab versus Rehab
Prehab has a training objective
Rehab has a “return to play” objective

the body’s weak links necessitating a period of rehabilitation. Figure 11 contrasts the differences between prehab and rehab efforts.

Prehab is a time of practice where technique can be refined (neuromuscular education) along with re-enforcing the fundamental and career long import of the various body stabilities. Any potential problem areas or weak links that may develop in response to the particular demands of an event can be addressed with exercises used to prepare key areas for these stresses.

Whole body consideration is addressed with whole body movements that promote body’s kinetic chain coordination and allow for a directed growth and development. Prehab components are proactive in nature. One engages in this activity to be better able to withstand the focused demands of event specialization and create a body that can challenge current limitations with superlative efforts.

Rehab is reactive in nature. An injury or illness has occurred and

due to imbalance or neglect of prevention efforts the stresses and strains of training have broken down the weak link. Examples of the need for rehabilitation would include a gait abnormality (a limp), a technical breakdown (a decreased fluidity of movement or a decreased range of motion at a joint complex) or an instability at a joint complex. There may also be the inability to produce force due to a bone or soft tissue injury, a strained or damaged muscle or compromised stretch reflex.

Rehabilitation efforts focus on *neuromuscular re-education*, a re-learning of the proper, biomechanically correct movement patterns. Attention is paid to specific restoration of pain-free function. This may entail reconditioning of specific muscles or muscle groups and address the redevelopment of the biomotor skills. Progress is measured with “return to play” testing that measures fitness (the ability to meet present and future challenges with success) to an acceptable level before pre-injury training can resume.

Ultimately rehab time is lost time or at best a holding pattern. Rehabilitation sidetracks one’s formal progression. One does not advance in the linear periodized progression. This is problematic as the “lost time” in the 10-12 year window of an athletic career can never be regained. This compromises any efforts to reach one’s full potential. This fact only serves to underscore Bompa’s earlier quote – the limiting factor in athletic development is not enough time. Time is of the essence in training.

SUMMARY

There are multiple pieces to training theory and the periodization puzzle. To effectively employ the concepts, it is important to master the individual parts and then both artfully and skillfully combine the component parts to create an effective whole.

Over the last 15 years it has been fashionable to question the value and efficacy of periodization. Authors have designed short-term studies with volunteer participants tested with 6-week studies using

the scientific method to effectively “prove” that periodization does not work (Hornsby et. al., 2020).

While these studies have checked the necessary boxes for peer reviewed acceptance with informed consent, Helsinki Protocols, a narrow list of dependent variables and statistically significant results the short timeline for these studies misses the point. Further clouding this issue is that the participants are of questionable athletic ability

who participate with questionable intent. The resulting studies are more an academic exercise conducted under the guise of scientific scrutiny rather than an enlightened pioneering endeavor.

Application of the components of training theory and successful periodization planning is a long-term process accomplished with a committed team effort between the coach and athlete that takes months, if not years to realize the

individual’s potential.

The fundamental training theory components detailed above offer starting points that along with implementation of the Four Global Concepts offers a workable model that can streamline the planning process and make the time, effort and energy dedicated to training more effective in both the short and long terms.

TERMINOLOGY DEFINED

Biomotor skills – The development of the five biomotor skills (speed, strength, endurance, flexibility and the ABC’s of agility, balance, coordination and skill) are a means to insure multi-lateral development. It is a broad based approach towards athletic development. The skills are necessarily learned in combination yet one skill may predominate within the individual disciplines of track & field (i.e. – speed – 100m, strength – shot put, endurance – marathon, etc.).

Early specialization – It is generally accepted, with few exceptions, that early specialization stifles long-term growth and development of an athlete. The young athlete never develops the broad-based skill set that allows for the cross fertilization of thought and actions that promotes growth and makes for a more complete skill set as the athlete matures.

General Adaptation Syndrome (GAS) – Selye’s GAS describes the body’s short and long-term handling or reaction to stress. He broke this process into three stages

– an alarm reaction, a period of resistance and finally, a period of exhaustion.

Invisible training – Invisible training is the use of MLD to condition the soft tissues of the body for the stresses and strains of training and competition. A broader application of this concept would be the conditioning of the various systems of the body (cardiovascular, musculoskeletal, nervous, hormonal, etc.) to withstand the give and take demands of training. Training adaptations are not visible to the naked eye.

Multi-lateral development (MLD) – MLD is a concept of developing the athlete in an “all-around” manner. This could entail a broad-based approach to developing the biomotor skills through varied activities and drills that challenge the athlete in new and innovative ways. MLD is the antithesis of early specialization.

Neuromuscular education – Neuromuscular education is the programming of movement patterns that make up the skills and sub-skills of technique. The body learns through the repetition of patterns that over

time develop into technical models that are physiologically sound and or biomechanically efficient. Bio-mechanical efficiency affects force production, energy use, mitigates injury and enhances performance. Injury, poor fundamental training or sloppy training habits would necessitate a re-learning or neuromuscular re-education that ultimately is “lost time” in the career of an athlete.

The sagittal plane – the body moves in three planes – frontal (dividing the body into front and back), transverse (dividing the body into upper and lower) and sagittal (dividing the body into left and right). Forward and backward movements in sports move in the sagittal plane. Movements depicted in Figure 8 follow a linear path and move in the sagittal plane.

Training theory – Training theory is an all-encompassing approach to identify, manage and develop an athlete. Modern coaching actions are drawn from scientific studies, continual observation and the masterful application of knowledge by experienced coaches. Training theory would include such sub-topics as periodization, progres-

sive overload and the four global concepts to organize the task of coaching.

Work capacity – Work capacity is the measure of the amount of effort put into sports training over the course of time. This training volume may be quantified with hours of practice, miles covered, weight lifted, technical elements completed, ground contacts and would more than likely include multiple combinations of these measures. This training volume has increased significantly over the last 50 years.

REFERENCES

- Bucciarelli R. The basics of periodization for soccer. <http://www.soccerfitness.ca/wp-content/uploads/2016/12/The-Basics-of-Periodization-for-Soccer-Soccer-Fitness-E-Book.pdf#:~>
- Bompa T. (1983). Theory and methodology of training. Kendall Hunt: Dubuque, Iowa.
- Bompa T and GG Haff. (2009). Periodization: theory and methodology of training. (pp. 4, 259-269). Human Kinetics: Champaign, IL.
- Connolly F and P White. (2017). Game changer: the art of sports science. Victory Belt Publishing.
- Hornsby WG, Fry AC, Haff GG and MH Stone. (2020). Addressing the confusion within periodization research. *Journal of Functional Morphology and Kinesiology*. 5, 68; doi 10.3390/jfkm5030068.
- Kurz T. (2001) Science of sports training. Stadion Publishing: Island Pond, VT.
- Martin D and P Coe. (1997). Better training for distance runners. Human Kinetics: Champaign, IL.
- Matveyev, L., (1981). Fundamentals of sports training. Progress Publishers: Moscow, USSR.
- Siff, M.C. (2004). Supertraining. Supertraining Institute: Denver, CO.
- Selye, H. The stress of life. McGraw Hill: New York. 1956.
- Viru A. Early contributions of russian stress and exercise physiologists. *Journal of Applied Physiology*. Apr 2002. Vol 92. p. 1378-1382.
- Winsley R and N Matos. (2011) Overtraining and elite young athletes. *Med Sport Sci*. 2011;56:97-105. doi: 10.1159/000320636. Epub 2010 Dec 21.

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USATF CALENDAR OF SCHOOLS

2023 Level 1 Schools are now open for registration. Watch for preliminary information on Level 2 Schools, Cross Country Specialist Course, Emerging Elite Coaches Camp, and other opportunities to be available in the spring issue of Track Coach.

<https://www.usatf.org/programs/coaches/calendar-of-schools>

Jan 6-9	Level 1 - Zoom #2023-1 (Central Time)
Jan 13-15	Level 1 - Zoom #2023-2 (Pacific Time)
Jan 20-22	Level 1 - Zoom #2023-3 (Mountain Time)
Jan 27-29	Level 1 - Zoom #2023-4 (Pacific Time)
Feb 3-5	Level 1 - Zoom #2023-5 (Eastern Time)
Feb 10-12	Level 1 - Zoom #2023-6 (Mountain Time)
Feb 24-26	Level 1 - Zoom #2023-8 (Pacific Time)
March 3-5	Level 1 - Zoom #2023-9 (Central Time)
March 10-12	Level 1 - Zoom #2023-10 (Mountain Time)
March 25-27	Level 1 - Zoom #2023-12 (Mountain Time)
May 19-22	Level 1 - Zoom #2023-20 (Eastern Time)
June 2-4	Level 1 - Zoom #2023-22 (Pacific Time)
June 9-12	Level 1 - Zoom #2023-23 (Central Time)
June 19-21	Level 1 - Zoom #2023-24 (Eastern Time)
June 23-26	Level 1 - Zoom #2023-25 (Eastern Time)

NEW: Registration for coaching education is now available under Coaching Schools directly within your membership profile on the USATF Connect platform and on the traditional Calendar of Schools.



BRAD WALKER NAMED 2022 USATF NIKE COACH OF THE YEAR

When athletes you coach take the top two spots in a single event at the year's two global championships, something is definitely going right. Walker guided Katie Nageotte and Sandi Morris to women's pole vault gold and silver at the World Championships in Eugene, reversing the order of finish from the World Indoor Championships in Serbia in March. Nageotte and Morris waged an epic battle for gold in Eugene, with Nageotte taking the top spot on the podium by virtue of her first-attempt clearance at 4.85m/15-11, a height Morris needed two tries to negotiate. At Belgrade, Morris sailed over 4.80m/15-9 on her final attempt to grab the gold over Nageotte, who ended up with a best of 4.75m/15-7. Over the course of the season the duo met nine times, with Morris holding an 8-1 edge over Nageotte, the reigning Olympic champion.



2022 USATF COACHING EDUCATION AWARDS ANNOUNCED AT ANNUAL MEETING

Joe Vigil Sports Science Award: Christopher Richardson, Ed.D, USATF Imperial

This award recognizes a coach who is very active in the area of scholarship, and contributes to the coaching literature through presentations and publications. This award identifies a coach who utilizes scientific techniques as an integral part of his/her coaching methods, or has created innovative ways to use sport science.

Ron Buss Service Award: Jeremy Fischer, USATF Imperial

This award recognizes a coach who has a distinguished record of service to the profession in leadership roles, teaching, strengthening curricula, and advising and mentoring coaches. This person is a leader, whose counsel is sought by others, and who selflessly gives his/her time and talent.

Fred Wilt/Educator of the Year Award: Dr. Christine Brooks, USATF Florida

This award recognizes a coach who has a distinguished record, which includes sustained, exceptional performance. This award is presented annually to recognize one individual who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

Vern Gambetta/Young Professional Award: Simone Terry, USATF Arizona

This award recognizes a young coach in the first 10 years of his/her career that has shown an exceptional level of passion and initiative in Coaching Education. This award is presented annually to recognize one individual who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

Terry Crawford/Distinguished Female in Coaching Award: Sue Humphrey, USATF Arizona

This award recognizes a female coach who has shown an exceptional level of accomplishment, passion, and initiative in Coaching Education. This award is presented annually to recognize one female coach who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

Kevin McGill/Legacy Award: Dr. Russ Ebbets, USATF Niagara

This award recognizes a veteran coach with 25+ years of involvement who has shown an exceptional level of passion and initiative in Coaching Education. This award is presented annually to recognize one individual who has exemplified passion and leadership nationally for the promotion of USATF Coaching Education.

Level 2 Coaches/Rising Star Award: Sean Denard, USATF Illinois

This award recognizes a coach who has utilized the USATF level 2 CE program to make an impact on their coaching that includes sustained, exceptional performance. This award is presented annually to recognize one individual who has recently completed the level 2 school and implemented its teachings in their coaching. This award winner exemplifies the impact of the USATF Coaching Education program.



VERIFY YOUR STANDING ON THE USATF COACHES REGISTRY FOR 2023

USATF members are encouraged to start 2023 off by verifying their compliance with USATF Coaches Registry requirements. Don't be caught off-guard at 2023 USATF Championships with a lapsed requirement. Members must be current with all USATF Coaches Registry requirements to receive a coach credential at USATF Championships. Members may verify their status by querying the public list with their name. A member whose name is not listed on the public Coaches Registry List should login to their membership profile on USATF Connect. A green, current status must be displayed under each individual requirement (Membership, Center for SafeSport Training, Background Screening and Coach Certifications). All require-

ments must be current through the last date of competition to qualify for a registered coach credential.

In addition, members must be listed on the club profile and/or designated by declared athlete during the specified USATF Championship.

Please be advised U.S. Center for SafeSport training is an annual requirement valid for a 365-day period and NCSI background screens are valid for two years from date of acceptance.

A link to the public USATF Coaches Registry List and requirement information can be accessed from [USATF.org > Programs > Coaches](https://www.usatf.org/Programs/Coaches) under the Quick Links heading.



USATF COACHING EDUCATION INSTRUCTOR SPOTLIGHT

An interview with Chris Richardson, Ed.D, Cerritos College, USATF Imperial

Chris Richardson is the Director of Track and Field/Cross Country at Cerritos College. Richardson is the Vice-Chair of the USATF Coaching Education Committee, USATF Level 1 West Region Coordinator, Level 1 Instructor, and Level 2 Instructor (Jumps). Richardson has served on multiple USATF Team Staffs including at the Capital Cup, Thorpe Cup, NACAC U23 Championships, and Pan American Junior Championships. As an athlete, Richardson was a two-time all-American and placed 16th at the 2008 Olympic Team Trials in the decathlon. He holds multiple USATF certificates, including a USATF Level 3 in Combined Events, along with a Doctorate in Athletic Administration from Northcentral University. At the 2022 USATF Annual Meeting, Richardson was honored with the Joe Vigil Sports Science Award for his service to USATF Coaching Education.



Chris Richardson (second from right)

Matt Rohlf (MR), USATF Coaching Programs Manager: Tell us how you got started in coaching, and second how you got involved with USATF?

Chris Richardson (CR): I got my start in coaching from my college coach who referred me to a local high school (Kennedy High La Palma, CA) I to help with the jumpers one to two days a week. This experience sparked my interest in coaching and working with athletes, but I didn't realize it at the time as I was focused on my own athletic journey. My thrust into coaching as a profession occurred in my pursuit as a banker; and after weeks of training and orientation, I left after my first day at lunch because I knew I was not going to be fulfilled. At that moment I knew I wanted to coach all day every day.

I always enjoyed learning and teaching and the environment of [education], which fosters collaboration, growth, and challenge. I am so fortunate to have had such great mentors that pushed me to grow as a coach and USATF coaching education programs provided that along with a community of fellow coaches with the same

mindset. The relationships I gained only further prompted my interest and passion for coach education.

MR: One of the themes that the executive committee continues to discuss is the value of mentorship especially in an increasingly digital education environment. You've referred to Olympic medalist coaches Cliff Rovelto and Harry Marra as two of the many mentors you've had in the sport. Walk us through how you forged those relationships, the importance they played in transitioning from national level decathlete to coach, and your advice to a new coach looking to find and create a mentor dynamic.

CR: When it comes to securing a mentor, it is as simple as asking. I always believed that to build a quality relationship you need to invest a quantity of time. With any relationship the initiation should be as convenient as possible in sharing time and energy, which I have found that coaches I have gleaned some level of mentorship from are more than willing to share. One major opportunity that allowed me the chance to interact and build these relationships was from the USATF Coaches Education Mentor Program. Some of the lessons I learned from my mentors, especially coming out of my athletic career to coaching, was that coaches need to be selfless and require wholehearted attention and focus with the prime objective being on the positive advancement of the athlete. This is a difficult reality to shift toward, but is extremely rewarding.

I would recommend connecting with as many experienced coaches as possible, and be mindful that there is something to learn from everyone. Sometimes mentorship relationships can be formal and informal. Lastly, I would say you will be surprised how receptive other coaches can be.

MR: As an academic and track and field coach, what conferences, publications, websites, or other sources of information (outside of USATF Coaching Education) would you recommend coaches follow or get engaged with for professional development, and even create networking opportunities?

CR: There are so many resources and outlets that can allow for access and information. I think exploring social media to spark interest and using the internet to get deeper into those areas. I am currently into looking at areas and topics that parallel the sport (interpersonal and/or performance based) and drawing connections to how I can apply what I gathered to helping my athletes. For example, learning breathing techniques from a respiratory therapist or various ways to have engaging/effective communication styles.

MR: Lastly, in your 19 years of coaching, you've had a growing list of accomplishments from conference and state champions, multiple Team USATF staff appointments, and qualifiers to USATF Nationals. Can you share what fuels your commitment to continuous improvement, advancement in the sport, and some of your goals for 2023?

CR: This makes me think of an old saying "the more I learn, the more I realize I don't know". The hardest part of this question is that I have a nagging fear that I am not doing enough, but the fuel is to build myself as a coach so that I am the best resource for my athletes. The double edge sword of coaching comes from having a competitive spirit that strives for excellence and a humble spirit to allow the reception of information and continuous self-audit.

My goal for 2023 is to build my current relationships within the coaching world. I have met a lot of people over the onset of the pandemic, but I want to invest time and energy in building those relationships.

MR: Chris, thank you for giving back to the sport, being an advocate for coaching education, and a part of this feature. I look forward to following all your individual and team successes during the 2023 season. USATF members can catch Chris Richardson next at multiple 2023 USATF Level 1 Schools and the summer Level 2 School.





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