

**NORTH AMERICA, CENTRAL AMERICA AND CARIBBEAN
TRACK & FIELD COACHES ASSOCIATION**

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**NACACTFCA Set to Celebrate 20th Anniversary
of Founding in Puerto Rico!**

See Details page 8!

**Athletes from NACAC dominate sprints, relays,
and many technical events in Berlin.**

NACAC Athletes won 51 medals at the Berlin IAAF World Championships in Athletics, with the United States and Jamaica leading the way as the top two medal-winning nations. Some highlights included Usain Bolt' trio of gold medals and two world records, Puerto Rico's Javier Culson winning silver in the 400 meter hurdles, Sanya Richards' 400 meter gold medal performance, and Ryan Braithwaite's 110 meter hurdle gold medal.

**NACAC regions loses three of its finest coaches
to UK Athletics**

American Dan Pfaff and Canadians Derek Evely and Kevin Tyler have all joined UK Athletics in the buildup towards the 2012 Olympics in London. Pfaff leaves the US Olympic Training Center in California and a career of helping US, Canadian, and Caribbean athletes to reach the top international level. He will head the North London HiPAC Training Center in Lee's Valley. Derek Evely leaves the Canadian Coaching Centre and a very successful career developing top Canadian athletes to run the HiPAC Training Center in Loughborough. Tyler, coach of 400 meter runner Tyler Christopher, leaves the Canadian Coaching Centre to serve as the strategic director or coaching and development.

Email news to rmercado@sjs.org

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- NACACTFCA NEWS

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- Some Myths of Athletic Training, Dr. Wolfgang Ritzdorf (GER)

- Coaching Horizontal Jumps in the 21st Century, Nello Moura (BRA)

- 2009 NACACTFCA Congress in Old San Juan





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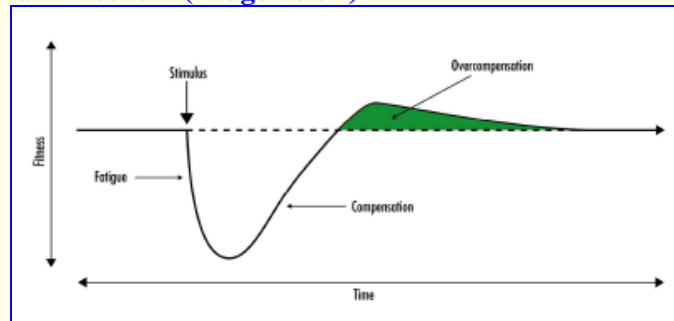
The Art of Coaching in the 21st Century – Dr. Wolfgang Ritzdorf (GER)

- PART I
- Some Myths of training

Some Myths of training

1 - The Overcompensation Myth

- This is what we believe (image below)



This is what we know

- The body is capable of adaptation to training loads
- Training loads of the correct intensity and timing cause overcompensation
- Training loads that increase progressively cause repeated overcompensation and higher levels of fitness
- There is no increase in fitness if loading is always the same or too far apart
- Overtraining or incomplete adaptation occurs when training loads are too great or too close
- Adaptation is specific to the specific nature of the training

This is what we don't know

- What is the amount of fatigue necessary for adaptation?
- What is energetic fatigue - what is neuronal fatigue?
- What is the time span for regeneration?
- What is the duration of "overcompensation"?
- What about individual variation?

2 - The Periodisation Myth

- This is what we believe
 - We are able to ensure best performance at the major competitions
 - We can peak performance by correct choice of training means and methods

The Periodisation Myth

- This is how it is - Study conducted in 2000

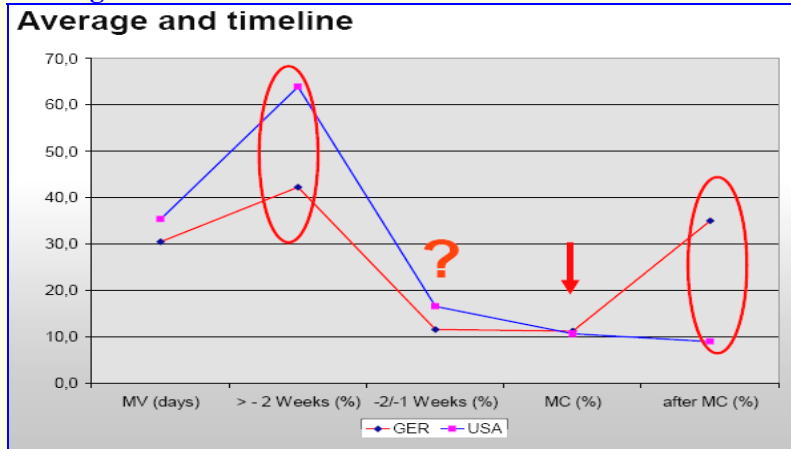
Database

- 3360 Athletes
- Best 20 in 14 events (not: middle/long distance) USTAF and DLV

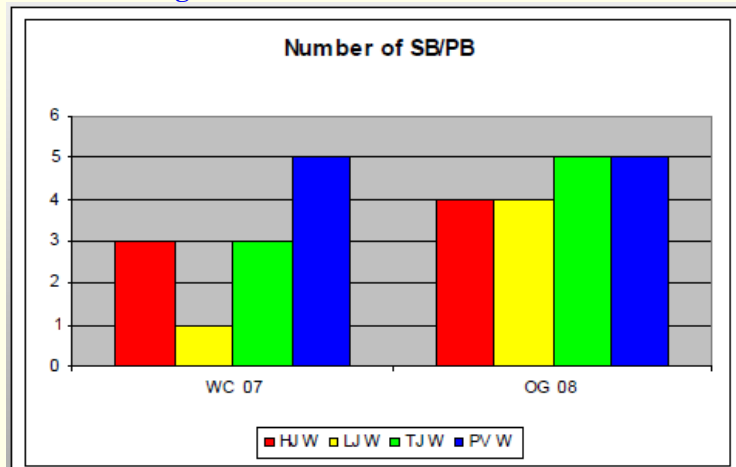


- **Period of observation**
 - 1996 (OG Atlanta) / 1997 (WC Athens) / 1999 (WC Seville)

Findings



Latest Findings on Season and Personal Bests



3 - The Volume Myth

- Volume is considered as one of the most important factors in training
- “I did 10 tons in weight training”
- “I did 200 hurdle jumps today”

What is the meaning of such statements?

Calculation of Load

- As volume and intensity are contradictory (the higher the volume the less the intensity and vice versa) you cannot calculate the load by just adding volume
- Example Weight lifting: 80%: 6 sets x 10 rep x 100kg = 6.000 kg / 95%: 6 sets x 2 rep x 130kg = 1.560 kg
- This is just the external load

Calculation of Load (2)

- More relevant is the internal load
- What does the external load mean for the various systems of the organism?
- In many situations it's the nervous system that counts
- Then “intensity” is the most important factor followed by “density”



- **CONCLUSION:** Calculation of load is different from adding volumes and needs some experience. There is no equation that gives a reasonable result.

Intensity vs Quality

- Intensity is different from quality.
- Intensity is a percentage of 100%
- Quality means a percentage of “perfect”

4 - The warm up myth

- This is how it is
 - 2 laps jogging / 10 minutes stretching / 10 minutes running drills
- Intention
 - Warm up muscles, soft tissues, nervous system etc.
 - Reduce risk of injury

4 - The warm up myth

- At 2nd glance
 - 2 laps jogging
 - Usually the speed is too slow and heart rate doesn't raise sufficiently
 - 10 minutes stretching
 - Muscles are still “cold” and stretching cannot be really efficient
 - 10 minutes running drills
 - Quite often it's just a routine without correction

CONCLUSION: A waste of 30 minutes every day

4 - The warm up myth

- Alternative
 - 10 minutes intensive work with a heart rate of about 150 bpm
 - Increasing intensity and range of motion
 - No breaks
 - Stretching is an own element of selected sessions
 - Running drills are supervised

5 - The “jumps off short approach” myth

Typical statement

- My athlete does 7.30 m from a short approach. It will be amazing what he will do from regular approach.
- But: quite often it's 7.40 m instead of the expected 7.80 m

Situation

- Jumps off a short approach are very popular in all jumping events
- Depending on the period and the level of performance they cover 70% or even more of technical training
- The result is quite often not satisfactory

Pro Arguments

- More repetitions
- Movement is slower
- More time to concentrate on details





Contra Arguments

- Basic change of take-off
- Basic change of time programme
- Improper reactive strength (plyometrics) pattern
- Adaptation of CNS to non-competitive situation



Rationale

- Run-up speed is missing
- ➔ Kinetic energy is missing
- ➔ Longer path of acceleration
- ➔ Lowering of CM
- ➔ Longer take-off time
- ➔ Different use of free elements
- ➔ Re-introducing speed causes a lot of problems

Consequences

- Reduce jumps off short approach
- Always remember the speed component
- Look for alternative drills apart from the pit/mat to work on technical details
- Permanently adapt to jumps off regular approach even in general preparation period

Dr. Wolfgang Ritzdorf can be reached at the World High Jump Centre in Köln at ritzdorf@dshs-koeln.de / www.worldhighjumpcentre.de



The Art of Coaching in the 21st Century - Horizontal Jumps

Nelio Alfano Moura
Brazilian Athletics Federation
IAAF HPTC – São Paulo

The subject chosen for the 2008 NACACTFCA's Congress is opportune. We live a time of intense scientific and technological development, and the trend is to see acceleration in the production of knowledge and development of tools to be used by coaches and other sport professionals. The costs of systems and equipments are falling, and nowadays it is possible to have a physiology or biomechanics personal laboratory that can be transported in a backpack. I always give as example the MuscleLab™, an almost complete solution for strength and power evaluation, training prescription and training control.

Coaches who want to be successful in the highest level can't stay away from these new technologies. However, it is important to remind that they are only TOOLS to be used in a smart way, not the focus of the attention. As also happens in educational environments, the ACTIVITY is the most important component of sports training. Successful coaches have personal abilities that surpass the availability of technological resources and their capacity to use them. These attributes as a whole have been named "Art of Coaching".

At this presentation, I will try to show a few technological resources I have been using to prepare jumpers in Brazil, the way I interpret and use scientific knowledge to help them to develop, problems I have faced trying to apply this knowledge, and some creative ways (art??) I have used trying to solve them.

A few aspects should be highlighted in advance:

Talent Identification

This is obvious: the first step to develop an elite athlete is to discover him or her! Brazil has a population of 187 million inhabitants, with a small prevalence of women. Around 23% of them are teenagers, something like 43 million people (Source: <http://www.ibge.com.br>). There is no consensus about minimal values to be achieved in motor tests in order to qualify a young person as a sport talent. Ljach, apud Hohmann e Seidel (2003) affirms that the old GDR and USSR used as minimum requirement 2 *sd* above the mean in field tests to select children for their system of sports talent's promotion. That means 2,3% of the teenagers. In Brazil, using the same norm, we can consider the existence of 989.000 teenagers with potential to each group of events! How to identify them, and how to attract them to the track, is our first and most important challenge.

Talent Development

Once identified and properly selected, it is time to begin a long term program of development for these athletes. Good initial values are important, but we also need to identify those with good trainability, another characteristic of sport talents. Both aspects are determined at least 50% by genetics, validating the need of a program of talent identification: systematic practice, perseverance and opportunity are



not enough. To offer programs that are adequate from the physiological, social and emotional points of view, and meaningful and motivating enough to keep the kids involved with the sport for many years is our second big challenge.

High Performance Training

Only after successfully complete the previous phases we can talk about a program aiming elite results. Even though we didn't solve our first two big challenges, a few athletes reach this phase, and have been developed appropriately. At this point, it is important to consider the big tendencies of the contemporary theory of sports training. In every case science, technology and the "Art of Coaching" are present: Planning and Training Monitoring; Individualization; Specificity; Interdisciplinary Approach.



William Wuyke and Nelio Moura with Congress Participants in Aruba



William Wuyke, Dennis Shaver, and Wolfgang Ritzdorf field questions in Aruba



2009 NACACTFCA Congress in Old San Juan

Sheraton Old San Juan (<http://www.sheratonoldsanjuan.com/>) October 8-11, 2009

Congress Theme: *Revolutions in Athletics – Coaches and Training Principles That Have Changed the Sport Forever*

Keynote Speaker – Elio Locatelli (ITA) – IAAF Coaches' Development
Presenters - Don Babbitt (USA) – Throws Training
Vern Gambetta (USA) – Modern Functional Strength Training for Athletics
Tadeusz Kepka (MEX/POL) – Modern Distance Training
Gary Winckler (USA) – Sprint / Hurdle Training
Dr. Wolfgang Ritzdorf (GER) – IAAF World High Jump Centre Director
Dr. Klaus Bartonietz (GER) – IAAF Biomechanics Team
Special Roundtable Discussion of 21st Century Technology in Athletics

2009 NACACTFCA Congress Presenters

Elio Locatelli (ITA) is the Director of IAAF Development and one of the greatest minds in the sport of Athletics. In the last 20 years, he has raised the IAAF Development Department to be the number one avenue of athletics development in the world.

Don Babbitt – Throws (USA) has been at the University of Georgia for 12 years and has coached eight NCAA champions and 47 All-Americans in throws, including Jenny Dahlgren and Reese Hoffa. Olympians WC medalists coached by Babbitt include Adam Nelson, Reese Hoffa, Breaux Greer, as well as Canadian record holders Jason Tunks and Brad Snyder.

Vern Gambetta – Training (USA) is internationally known as a coach and consultant on four continents. He was involved in biomechanical analysis and product development with Nike, Converse, and Lycra for several years. He specializes in coaching Combined Events and is a consultant for Nike Oregon Project. He also edited *Track Technique*, the technical journal of USA Track & Field, and was associate editor of the IAAF technical journal *New Studies in Athletics* and co-founder of USA Track & Field's coaching education program.

Tadeusz Kepka Distance (MEX) was brought from Poland to Mexico in 1966 to prepare Mexican distance runners and marathoners for the 1968 Olympics. Although Kenyans dominated the Mexico City Olympic distance races, Latin American distance running and race walking would never be the same. Kepka revolutionized distance training methods in Mexico and the region, and coached Mexican greats Rodolfo Gomez, Arturo Barrios, and Dionicio Ceron as he exploited the tremendous resources of high altitude training in Mexico.

Gary Winckler – Sprints/Hurdles (USA) recently retired after 22 years at the University of Illinois, where his teams won 11 Big Ten Championships. Over his career at Illinois and Florida State, he has developed over 300 All-Americans. He has also coached 13 athletes who have reached the Olympic Games in sprints, hurdles, and relays and several who have medaled.

Klaus Bartonietz – Throws (GER) is a Biomechanist educated at the highest level in sport in Moscow and has worked at the Research Institute for Elite Sport in Leipzig since 1973. He is also a lecturer worldwide on the mechanics of throwing and strength training and is conducting research on the use of the glide and spin by world class shot putters. He coached javelin thrower Boris Henry and now coaches young athletes in the throws in Germany.

Dr. Wolfgang Ritzdorf (GER) is the Senior lecturer at Institute of Motor Control and Movement Technique at the German Sports University Cologne, former national coach for Germany and senior lecturer for IAAF Coaches Education and Certification. He has coached 6 women over 1.90m in the high jump including Ulrike Meyfarth (1984 Oly Champion) and Heike Henkel (1992 Oly Champion). He is director of the new IAAF World High Jump Centre in Cologne.

Schedule:

Thursday, October 8

1:00 – 5:00pm Arrivals & Registration 6:00 – 8:00pm Welcome Reception - Sheraton Old San Juan

Friday, October 9

9:00–10:00am Opening Ceremonies
10:30–12:00pm Keynote Presentation Elio Locatelli – *Two Decades of Revolutions in Coaching*
12:00 – 1:00pm LUNCHEON - NORDIC SPORT NACACTFCA 20th Anniversary
1:00 – 2:15pm Distances – Tadeusz Kepka (MEX)
2:30 – 4:00pm Sprints/Hurdles – Gary Winckler (USA)
4:15 – 5:30pm Advanced High Jump Training – Wolfgang Ritzdorf (GER)
5:30 – 6:00pm Roundtable Discussion
7:00pm - ? Night in Old San Juan

Saturday, October 10

9:00 -10:30am Throws – Don Babbitt (USA)
10:45–12:15pm *Training in the New Millennium* -Vern Gambetta (USA)
12:15 – 1:30pm LUNCHEON - MONDO
1:30 – 2:45pm Biomechanics and Training of Throws - Klaus Bartonietz (GER)
3:00 – 4:00pm Panel Discussion – Application of Technology in Modern Training
4:00 – 5:00pm NACACTFCA Congress, Elections, Raffle, and Closing
7:00–10:30pm BANQUET and Local Entertainment

Sunday October 11 Local Tours & Departures

