

Training in the New Millennium

Vern Gambetta
Gambetta Sports Training Systems

I. Innovation and Change

Where will innovation come from?

How will change occur?

Is innovation and change necessary?

Beware of the tyranny of dead ideas

Build on the past and learn from it, don't repeat it

Too many coaches still act as if the world is flat!

The Medici Effect

Connect seemingly unrelated fields by stepping into the intersection of fields, disciplines or cultures.

That allows you to combine existing concepts into a large number of new ideas

Look at different disciplines and search for places where they intersect. At these intersections there is a myriad of new ideas and applications to be explored.

Complexity Science

The study of systems composed of many and varied parts that interact in complex and non-linear ways.

Systems cannot be understood simply by understanding the parts - the interactions among the parts and the consequences of these interactions are equally significant.

II. Coaching

Art or Science?

Coaching is not something you do, it is something you are!

Beliefs and Mythologies versus Facts and Best Practice

Who are the coaches today?

Where did they come from?

Where will the next generation of coaches come from?

How do you coach?

Are you a Simplifier?

Are you a Complexifier?

Be a Generalist

A generalist has the skill of making connections among seemingly unrelated information.

It's not the links, but the linkages that make the system. The specialists focus on the links, generalists can stand back and see, in the bigger, "holistic" picture, how they work together.

Recognize that coaching is management

Managing Training

Managing Injuries

Managing Competition

III. Talent Identification and Development

Nature or Nurture – The Talent Code (Coyle)

2012 Olympians are twelve years old today!

What is the plan for their identification & development in Athletics?

Who are you coaching today, right now?

Who will you be coaching five and ten years from now?

We must recognize that are competing with other sports for talent.

How about the Balyi model of development? Is it valid? Does it work?

Stages of Development

Initiation

FUNdamental – Fundamental movement skills

Learning to Train – Fundamental techniques of track and field

Training to Train – Build a good engine

Training to Compete – Optimizing fitness preparation

Training to Win – maximize performance skills

Retirement / Retainment

The Goal

At the end of the journey all physical limitations are eradicated and is the athlete full ready technically, tactically, physically and psychologically to compete to win in the competitive arena.

VI. Training

Where will innovations and breakthroughs occur?

Are we building complete and adaptable athletes?

Does your training reflect the science of training?

Training myths and beliefs versus training realities

Stretching – How and Why? Max VO₂ – Random number or relevant?

Lactate – Friend or foe? Energy Systems – So What?

Max Strength –How Much & When?

VII. Summary

We are fortunate to coach a great sport – **ATHLETICS** – The mother of all sports, so let's honor that sport by giving our athletes the best of our knowledge and wisdom. NCAC has played a major role in this the last twenty years, let's all insure that that we continue the quest for knowledge to allow our to run faster, throw further and jump higher and longer.

Suggested Readings

Historical Works

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Gambetta Sports Training Systems

PO Box 50143

Sarasota, Florida 34232

Phone: 941- 378- 1778

E-mail: gstscoach@gmail.com

Web Page: www.gambetta.com

Blog: www.functionalpathtraining.typepad.com