Designing and Implementing Effective Workouts

Revisiting the Microcycle & Training Session

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Gambetta Sports Training Systems
"50% of what we know is wrong; the problem is that we do not know which 50% it is"  Tim Nokes, MD, PHD

Where do I go?
What do I do?
Now what?
TOO MUCH - Volume Loading Trap

TOO SOON - Progression & Accumulation

GETTING READY - Warm-up & Preparation

GETTING STRONG - Spectrum Strength

PLANNING - Current Reality
Answer These ?’s

✓ Why are you doing what you are doing?

✓ What are you doing?

✓ When are you doing it?

✓ Is what you are doing event like or event specific?

✓ Are you making your athletes better or are you just making them tired or predisposing them to injury?
The Goal

At the end of the journey all physical limitations must be eradicated and the athlete is ready technically, tactically, physically and psychologically to compete to win in the competitive arena.
3M + 3P = Training System

“Win the workout”
Complexity

Systems cannot be understood simply by understanding the parts - the interactions among the parts and the consequences of these interactions are equally significant.
The Body’s Is Self Organizing!

Don’t turn energy systems & muscles off & on
FORCE REDUCTION

PROPRIOCEPTION

FORCE PRODUCTION
Anatomical Structure determines function, this determines exercise selection and prescription.
Starting Point
Thorough & Complete PCA
World Class 100m Sprinter
Progression

Fitting pieces together
Variation
Accumulation
Training Effects

Acute - Those that occur during the exercise

Immediate - Changes from a single workout or training session

Cumulative - Changes from a series of workouts

Delayed - Changes over time

Residual - Retention of changes after cessation of training beyond a given time period
Continual Adaptation
Adaptation Time

Flexibility - Day to Day

Strength - Week to Week

Speed - Month to Month

Work Capacity - Year to Year
Context is King
Volume Loading - Precarious Balance
Stimulus Threshold
Recoverability

Highly Individual & Event Specific
Seven Day Microcycle Plan (Single Session)

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Notes:
## Seven Day Microcycle Plan (Multi-Session)

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### Notes:
# Seven Day Microcycle Plan (Front Loaded)

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**Notes:**
## Fourteen Day Microcycle Plan

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Notes:
Factors to Consider in Developing a Plan
Qualities of Individual

- Speed
- Strength/Power
- Stamina
- Suppleness
- Skill
- Biological Age v Chronological Age
- Injury History
- Adaptability/Recoverability
- Cognitive Ability
- Level of Technical Development
Gender
“24 Hour Athlete”

- High alertness: 10:00
- Best coordination: 14:30
- Bowel movement likely: 08:30
- Fastest reaction time: 15:30
- Melatonin secretion stops: 07:30
- Greatest cardiovascular efficiency and muscle strength: 17:00
- Sharpest rise in blood pressure: 06:45
- Highest blood pressure: 18:30
- Lowest body temperature: 04:30
- Highest body temperature: 19:00
- Deepest sleep: 02:00
- Bowel movements suppressed: 22:30
- Melatonin secretion starts: 21:00
Time frame available to execute plan
Monitoring

What you see or think you see is only the tip of the iceberg
Peaking
Tapering
Slow Leak
Dulling the Knife
Track & Field competition occurs in an information-rich, dynamic environment that requires complex coordination patterns to produce optimum technique.

[Images of track and field athletes in action]
Give the athlete increasingly complex movement problems to solve

Stable/Predictable >>> Unstable/Chaotic
3R’s

Routine

Repetition

Refinement
Want to do
Nice to Do
Need to Do
Strength Training

Coordination training with appropriate resistance to handle bodyweight, project an implement, resist gravity and optimize ground reaction forces.
Strength Training

Full Range of Motion

Multiple Planes

Multiple Joints

Mindful

Proprioceptively Demanding
Doherty Strength Power Index (DPI)

Ask yourself - Where do you perform?

Use DPI as a guide for exercise selection
Squatting

Training = Testing
Testing = Training

SLS
Seated Single Leg Squat
Squat with Mini Band
Spectrum Squats

#1 - Isometric
#2 - Loaded
#3 - Body Weight
#4 - Ballistic
Lunge & Reach (Anterior)

Reach out in front, chest to thigh, head to hands
High Step-up
Mini Leg Circuit II

Over Head Squat x 3
Lateral Lunge x 3 each leg
Lateral Step-up x 3 each leg
Ice Skater
Bosch Exercises
Hurdles

When

Overs

How

Unders

Where
The Great Connector

Strengthen

Lengthen
Core Training

On Your Feet  Patterns  Bracing
All Training is Core Training
Get out of the sagittal plane!

Rotate

Rotate

Rotate
Flexibility

Mustability

The correct amount of motion, at the correct joint, in the correct plane, at the correct time
Remediate - “Re-abilitate” Daily

FUNdamental Work
Posture (Dynamic)
Balance
Coordination
Why FUNdamental Work?

Sedentary Lifestyle

One Sided (Biased) Training

Poor General Fitness Background
Warm-up & Preparation

1) Mini Band Routine (Band above ankles)
   Sidestep  Walk - Forward/Back  Carioca  Monster Walk

2) Balance & Stability
   Single Leg Squat (Hold each position five counts)
   Straight Ahead  Side  Rotation

3) Basic Core – Walking Forward & Back (3 Kg Med Ball)
   Wide Rotation x 20  Tight Rotation x 20  Side to Side x 20
   Chop to Knee x 20  Figure 8 x 20

4) Lunge & Reach Series( 2 reps in each plane – Forward/Side/Rotational)
   Reach Up  Reach Out & Down  Reach Across

5) Crawls
   Jack Knife Crawl x 5  Creepy Crawl x 5

5) Active Stretch ( No more than two minutes)
   Calf  Hamstrings  PsoasLats  Pecs

6) Coordination (All @ 30 meters x 2)
   Skip
   Crossover Skip
   Side Step
   Carioca
   Backward Run
   High Skip
   High Skip with Rotation

7) Accelerations
   4 - 6 x 40 to 60 meters
Hip Series

Hip Series One – Standing

Standing #1
Lift one leg in front and move up and down. Repeat with the other leg.

Standing #2
Lift one leg to the side and move up and down. Repeat with the other leg.

Standing #3
Lift one leg behind and move up and down. Repeat with the other leg.

Standing #4
Move the leg up and down. Repeat with the other leg.

Hip Series Two – Kneeling

Kneeling #1
Extend the opposite leg to the front and move it up and down.

Kneeling #2
Extend the opposite leg to the side and move it up and down, repeat with the other leg.

Kneeling #3
Extend the opposite leg behind the body and move it up and down, repeat with the other leg.

Hip Series Three – Supine

Supine #1
While lying on the floor, fold legs over the body and raise the hips up and down.

Supine #2
Raise one leg with the knee bent
While lying face up on the floor, bring the body up in the arch position
Move hips up and down while holding the leg in position. Repeat with the other leg.

Supine #3

Supine 3A&B
One leg against the wall and the other leg raised with the knee bent
Move the hips up and down while holding the leg in position. Repeat with the other leg

Supine #4
While lying face up on the floor, move the hips up and down
Support on the shoulders, arms and heels
Hip Drop Series

Forward

Step Down

Stepping Stones
Balance Single Leg Squat with Mini Band
Plyo’s
Testing = Training
Training = Testing

Can’t afford to wait for testing day or competition

Every drill, each rep is an opportunity to evaluate
Sometimes what you can’t see is more important than what you can see!
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