Training for Capacity vs. Utilization

Presented by
Bob Bowman
Interests

- Dabbles in different things.
- Reason for interest in specific sports or things like the arts.
- Interests have 2 components
Components

1. Inspirational
   - Feel good
   - Uplifting
   - Challenge to be more creative

2. Hard Work
   - Pushed to your capabilities or beyond
   - Not always grinding kind of work
Interests

- Horse Racing

1. Inspirational:
   The animal is inspiring.
   Awed by it’s physical power
   Presence

2. Hard Work:
   There’s plenty of that involved
   From workers to the animals
Interests

1. Inspirational
   The music
   Emotional impact
   Technical Side

2. Hard Work
   Art & Science to it
   Objectivity and technical precision
Relation to Swimming

- There’s an art versus science component
- Science part = The **What?**
  THIS talk
- Art part = The **How?**
  How to put it together?
  How to communicate?

**Find balance between the two.**
The Process

3 Questions to Ask Yourself:

1. Do you know what is actually going on in your program?
   Must record practices

2. What are you going to measure?
   If you can’t measure it, you can’t manage it.
   Athletes should know times (creates more goal setting)

3. What is your program is all about?
   NBAC = The disciplined pursuit of excellence
Capacity Training

- Credit to Nort Thornton

**AEROBIC BASE TRAINING IS IMPORTANT**

What is capacity training?

Capacity = The CUP

Improving and expanding the infrastructure of the athlete (i.e. bigger warehouse means greater capacity for inventory; more trucks to haul stuff around)
Capacity Training

- Long-term and more general training
- Widespread and less specific therefore less volatile.
- Takes longer to develop
- Sacrifices short-term gains for long-term goals
- Methodical & systematic.
Capacity Training

- Improving systems and aerobic capacity
- Improves general fitness and improvements.
- Makes cup bigger; as BIG as can be.
- Goal = get cup big, then fill it with utilization.
Utilization

- What can you do this season?
- Sacrifice the long-term with the short-term
- Finding balance is best
- This training is dynamic and volatile; need to be careful - operates on the edge of their capabilities.
Utilization

- Murray

“NBAC tapers once every 4 years.”

Any specific training you do takes away from your ability to capacity train.

Closer towards competition your ability to go 10 x 400’s goes down, but you ability to go 1 x 100 goes up.
Capacity versus Utilization

Working with limits versus going beyond them.

Example:
Phelps before Beijing
Cup = Size of the Atlantic Ocean filled to the brim

Phelps before 2010 Pan Pacs
Cup = Size of thimble half full
Capacity versus Utilization

Example:
Age-groupers who train a lot of capacity training, then go to college and do a lot of utilization = SUCCESS

- Age-groupers/high school – make the cup bigger
- Post-grads – fill the cup
Capacity versus Utilization

Rebecca Soni
  Speedling = Capacity
  Salo = Utilization

Ous Mellouli
  Schubert = Capacity
  Salo = Utilization

Vendt
  Stern/Schubert = Capacity
  Bowman = Utilization
Capacity versus Utilization

- Concept works for everything
dryland
mental training
coaching

- Coaches mistake the “what” for the “how”.

Capacity versus Utilization

- Have to have capacity to accept to do some things, then build with higher performance skills (i.e. taking a deep breath behind the block at 8 years old versus at the Olympic Games)
- As a coach, build, gather, learn, grow (toolbox), then as you go along decide things you want to utilize.
Spectrum

Shoulberg
Simon

Bowman
Urbanchek

Troy

Salo
Durden
McKeever
Week Plan

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Overload/Power Example:
- 10 x 45 s with weight @ 1:00 = CAPACITY
- 10 x 10 s with weight @ 1:00 = UTILIZATION

Monday PM Early Season
- Early Season: Active recovery/fast work, low rest = CAPACITY
  - 20 x (100, 50) @ 1:40
- Later Season: Shorter rest = UTILIZATION
  - 2 weeks before Conference
  - 4 x (50, 50 one of each stroke) des 1-4 = UTILIZATION
Week Plan

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Wednesday (Quality) – For college kids, that’s UTILIZATION 100’s on 6 minutes, or Broken swims

Can also build CAPACITY – 3 repeats versus 10 repeats
Example

Twice through
4 x 200 @ basic interval (2:20) = CAPACITY
3 x 200 @ 2:15 = CAPACITY
2 x 200 @ 2:10 = UTILIZATION
1 x 200 @ 2:05 = UTILIZATION
(200 within 5 seconds of their best)

• Less volatile
• Designed this way is a mixed set
Example

- 5K or 10K for time Benefit?
  - Something about the process that doesn’t happen anywhere else.
  - Targets specific movement & many smaller movements.
Example

- Look at yardage as time.
- Average is 7k, bump up to 9k for a couple of weeks, then back down to 7k = much better second 7K because you have more capacity.
- Example of 3 weeks before December meet (hell week, followed by regular week, followed by rest). Worked like a charm.
Practical

- Don’t reinvent the wheel
- Aerobic training is important
- Find out what works.
- Work backwards from there.

As a coach, gather info, build your toolbox, then decide what to utilize.
Musicians don’t just throw down x’s and o’s then decide how to make it music. First compositions are harmonic and melodic and build into great compositions from there. Your coaching should follow the same pattern.